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CERTAIN CARDIORENAL CIRCULATORY CORRELATIONS*

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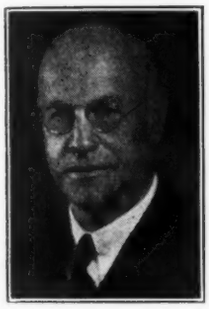

H. A. CHRISTIAN

Heart and kidney have a two-way relationship so far as circulation is concerned: with failing heart, renal function decreases; with failing kidney, heart function decreases. Starting with these theses, let me develop the idea of a closely interwoven cardiorenal circulatory correlation.

Simple study of the urine by methods familiar to all, and used by almost all, physicians give an insight into these correlations. The simple study of the urine, to which I refer, consists of determining its specific gravity, crudely estimating the amount of albumin and inspecting under the microscope the sediment from a centrifuged specimen for the presence and types of casts and cells, all of which can, and should be, carried out in the office of the general practitioner. The other aspect of the correlated cardiorenal phenomenon is to be obtained from equally simple methods such as from estimating heart size, determining presence or absence of edema in the pulmonary or systemic fields of circulation and measuring blood pressure, with a few additional observations, all involving only the usual methods of physical examination practiced by all physicians with any claim to thoroughness in their work. Various, more exact methods, including special instruments, may be used. The use of some of these were necessary to obtain the exact data needed for a proper understanding of some of these relationships. However, with such data available for the working out of these relationships, most of these more complex methods can be dispensed with by the clinician without his losing very much in the way of valuable help in the solution of his problems of diagnosis and treatment.

If a urine specimen shows a moderate to considerable amount of albumin, a few hyaline and granular casts, a few red cells and a specific gravity over 1.025 in all probability cardiac function is decreased, and this has caused decreased renal circulation, while renal function is depressed only in proportion to decreased renal blood flow. Physical examination of such a patient should show cardiac enlargement and signs of edema in both pulmonary and systemic circulations with or without hypertension, depending on the nature of the cardiac lesion responsible for cardiac failure. When these conditions exist, proper therapy, including bed rest, can be expected to restore cardiac function enough to cause the disappearance of edema manifestations. If this happens, albuminuria will decrease much or disappear, as will casts and red blood cells, while specific gravity falls to

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normal levels. Here the renal disturbance has resulted from the cardiac decompensation causing decreased renal circulation and not from any primary renal lesion.

If a specimen of urine shows a large amount of albumin, none or a few to moderate number of hyaline or granular casts with no or a few red blood cells, and a specific gravity from 1.015 to 1.022, in all probability renal circulation is normal, and, if so, heart function is normal, and the heart is not working against any increased load. Physical examination of such a patient in all probability will show a heart of normal size, no signs of edema in the field of pulmonary circulation and normal blood pressure. If those are the findings on physical examination, it is quite safe to say that the patient is suffering from that form of Bright's disease in which, if not already present, edema of the subcutaneous tissue and probably fluid in the body cavities sooner or later will appear. What is going on is leakage through the glomerular membranes chiefly of albumin, globulin and possibly, to a very moderate degree, of red blood cells. This throws no burden on the heart but sooner or later will so change the composition of the circulating blood plasma that leakage of water through the systemic capillaries takes place with resultant edema. In some of these patients no other changes take place, and the conditions remain in statu quo or almost entirely return to normal. In others, chiefly those in whose urine sediment fairly numerous red blood cells appear, the picture gradually shifts; slowly edema decreases, albuminuria lessens, specific gravity of the urine decreases, blood pressure rises and later anemia comes into evidence; these shifts are gradual but progressive. Now a load is being placed on the heart by the rising blood pressure and probably by some of the other changes in blood composition, which sooner or later will result in heart hypertrophy and eventual heart failure; as these happen, the clinical picture takes on the added features of an increasing cardiac decompensation, among which are edema in the pulmonary and systemic fields of circulation. Study of this patient now in all probability will show an enlarged heart and evidences of pulmonary and peripheral edema usually with, or rarely at this stage without, high blood pressure. If under proper therapeutic management cardiac function is so improved that evidences of cardiac decompensation disappear, little change will result in the urine findings which have been described above. This indicates that the disturbed renal function has originated mainly within the kidney and is in keeping with the idea that progressive intrarenal changes have been the cause of the developing cardiac dysfunction and final cardiac decompensation.

In the correlation of changing renal disturbance to cardiac function in such a patient, peripheral edema has passed through three phases. First, it appears with normal heart function by reason of changes in blood plasma composition and associated phenomena; second, it disappears with return of blood composition to more normal conditions at a time when progressive cardiac disturbances are under way; third, it reappears as a result of progression of cardiac disturbance increasing to the point of cardiac decompensation. It may be said that the early edema is of renal origin, the late or cardiac origin; the first concerns chiefly blood composition, the last blood circulation.

If in the urine sediment red blood cells are abundant so as to cause a gross hematuria, the progression and cardiorenal circulatory correlation will be essentially as just described, except that the early or renal edema will be a much less prominent feature. This is at the beginning the form of acute Bright's disease most often encountered.

If a specimen of urine shows only a trace of albumin, a moderate number, or even no, hyaline or granular casts and a specific gravity fixed at about 1.010, in all probability the blood pressure will be found much elevated and sooner or later there will be nitrogen retention. Many of these patients will show some to marked enlargement of the heart and slight to marked evidences of cardiac insufficiency with eventual peripheral and pulmonary edema. In other words these patients will resemble the later stages of renal disturbance as described in the preceding paragraph.

In considering cardiorenal circulatory correlations intrarenal and extrarenal circulation must be kept separate though recognized as interrelated. Decrease in the efficiency of the general circulation, mainly

caused by inefficiency of the heart, decreases the blood flow to all parts of the body, including the kidney; among the evidences of generally decreased circulatory efficiency are those resulting from decreased blood flow to the kidney with its resultant effect on nutrition of kidney cells and vascular membranes, mainly those of the glomeruli, causing chiefly glomerular leakage. The kidney structure, which seems most susceptible to decreases in blood flow, such as occur in cardiac decompensation, is the membrane interposed between the lumen of glomerular capillaries and the capsular space about the glomerulus. Experiment on animals has shown that with even slight reduction in glomerular capillary blood flow leakage of albumin through the glomerular membrane takes place promptly and that with slightly more disturbance of circulation red cells also pass through this membrane; from these changes albuminuria, often of considerable amount, and hematuria, usually only microscopic in degree, result. This is just what we observe in our patients, when cardiac failure leads to generalized chronic passive congestion with accompanying pulmonary and systemic edema. This reaction is such a delicately adjusted one, so far as the kidney is concerned, that not infrequently finding an increasing albuminuria and a few red cells in the urine sediment are the first evidences we have of developing heart failure in the sense of beginning cardiac decompensation. Intrarenal circulation here parallels extrarenal circulation.

Changes in the intrarenal circulation, apart from those associated with extrarenal, and hence general, circulation, have a very different correlative effect on cardiac function and general circulation, better understood now than formerly because of animal experiments. These effects on the cardiac function are indirect, caused by a developing hypertension, brought about apparently by some humoral effect as yet but imperfectly understood but resulting from changes in intrarenal circulation. The changes in renal function resulting from cardiac decompensation, which already have been described, do not cause any change in blood pressure, and this is in sharp contrast to the blood pressure raising influence of the intrarenal changes in circulation now to be described further.

The crucial point in intrarenal circulation seems to be in the glomerulus. Influences that check glomerular blood flow throttle the glomerulus, as I have chosen to call it in another discussion, and bring about a rise in blood pressure, which increases until both systolic and diastolic pressures reach and usually remain at levels much above normal. This throttling effect on glomerular circulation can be brought about by a variety of lesions effective on the renal circulation at any point between the aorta and the venous system of the kidney. This idea was first advanced in somewhat different form many years ago on the basis that an increase in systemic pressure was needed to maintain renal circulation and consequently renal blood flow, when glomerular lesions hindered it or renal atrophy necessitated a better blood flow in order that the smaller kidney could function above normal for its bulk to prevent total renal function from dropping much below normal. We now know that this process depends upon other things than simple compensation brought about to increase the drive of blood through the kidney.

This principle of glomerular throttling causing increased blood pressure is seen in its simplest form in the experiments of Goldblatt in bringing about in dogs a rise of blood pressure by reducing the calibre of the main renal artery by means of a silver clip, a method of impeding arterial blood flow largely devised for other purposes a good many years ago by the late William S. Halsted, the surgeon at Johns Hopkins.

Goldblatt's experiments show that in his dogs a high blood pressure can result from such arterial obstructing at a time when excretory renal function is undisturbed or but little reduced, because blood flow through the kidney is nearly enough normal to maintain cellular and membrane nutrition at approximately high enough levels to do the work usual to these structures in body economy. This normal level of renal excretory function may be maintained in these experiments because in these dogs all glomeruli are in active circulatory function, while in normal dogs always a considerable number of glomeruli at a given moment are, in all probability, in a resting phase; i.e., through their capillary loops blood circulation practically has ceased. Direct ob-

servation of the kidneys of frogs has shown this resting stage of many glomeruli to take place, while neighboring ones are showing active circulation, and that functioning glomeruli may go into a resting stage, while previously resting glomeruli can again take on active blood flow through their capillary loops. This, of course, so far as the dog is concerned, is merely speculation, as it has not been possible so far to observe directly the glomeruli in the living kidney of the dog; some other factor, of course, may be responsible for these results, an increased blood pressure with not abnormal excretory function produced by throttling down the blood flow in the main renal artery, even in only that going to one kidney.

That the blood pressure elevation is due only to the throttling is shown by the rapid fall to normal of blood pressure after the throttling metal clip is removed. That this is not a reflex nervous mechanism from the kidney is shown by obtaining the same results after all nerves to the kidney have been severed and from experiments with a kidney transplanted into the neck so as to function well. These observations suggest that something formed in the throttled kidney escapes by the circulation in some way to bring about elevated blood pressure, possibly by causing generalized peripheral vascular obstruction. This appears not to be a product of abnormal renal retention, since renal excretory function has remained good.

The effects obtained in dogs by Goldblatt's experiments are analogous to those seen in man with what we call essential vascular hypertension in which there is high blood pressure and essentially normal renal excretory function with urine within the range of normal in all known constituents. In man, however, with essential vascular hypertension we have no direct observations pointing to the existence of a renal throttling like that in the Goldblatt dogs; but, however caused, in man the hypertension, as a rule, persists and eventually leads to cardiac enlargement and later cardiac decompensation with the physical signs and urine findings described earlier as occurring in cardiac decompensation caused by any sort of lesion of the heart leading to cardiac insufficiency, i.e. cardiac lesion either without or with high blood pressure. These patients die usually of cardiac failure or coronary occlusion and some from cerebral vascular accident.

Now, if instead of throttling glomerular flow as in the dog by means of a partial obstruction of the main renal artery, it is brought about, as often happens in man from vascular disease, by a diffuse throttling effect on many arteries within the kidney tissue and particularly on the arterioles near the glomeruli, we get a different effect. There is the same rise in blood pressure and eventually, if the patient lives long enough, heart enlargement and cardiac decompensation follow. So far the cardiorenal circulatory correlation is the same as that just described. In addition, however, there is a definite effect in these patients on the excretory function of the kidney; renal excretory function is greatly decreased as shown by lowered specific gravity of the urine tending to fall to, and fix at, about 1.010, by nitrogenous retention in the blood and later anemia and by moderate albuminuria and cylindruria. Some of these patients die from cardiac failure, coronary occlusion or cerebral vascular accident, while slightly more die of uremia. This is what the pathologist calls vascular nephritis; some clinicians speak of it as malignant hypertension, a term that always has seemed to be undesirable.

Lesions of the glomerulus itself may be the cause of throttling of glomerular blood flow, i.e. different varieties of glomerulonephritis. In these patients, as a rule, evidences of decreased renal excretory function come earlier and progress more, while rising blood pressure is later in sequence and less in influence on the clinical picture, until the later stages of the disease, when the findings are the same as have been described in the preceding paragraph.

Throttling within the glomerulus can be caused in a variety of ways, all of which lead to the same final clinical picture. The normal glomerulus is complex in both structure and function and from this complexity derives the possibility of disturbance of its structure and function in many ways. Besides throttling, when the pathological lesion, that throttles the glomerular circulation, lies within the glomerulus, as a rule, also there is an accompanying lesion of the structures of the glomerulus, which inhibits filtration through the glomerular membrane of substances that under normal conditions

thus are excreted from the body. When this happens, we have these various substances retained in the body, and they increase in amount in the circulating blood. Most important of these are the various forms of nonprotein nitrogen, and we say that the glomerular lesion has caused nitrogen retention. With such retention eventually comes a symptom-complex that we know as uremia. The exact mechanism and cause of uremia is not understood; from the point of view of our present discussion it suffices to think of it as an accompaniment of nitrogen retention, a symptom of a disturbance of glomerular function that hinders its normal excretory function. From intraglomerular lesions arise finally both elevation of blood pressure with eventual heart failure and uremia with a later appearing anemia.

This form of renal insufficiency can result from any form or combination of forms of what the pathologist causes glomerulonephritis, sometimes progressing from an attack of acute Bright's disease, with or without subsequent acute exacerbations, and sometimes gradually developing in an entirely insidious way. In the first group infections of various sorts, especially those of the upper respiratory tract, commonly precede the symptoms and signs of renal disease; in the second group no evidence of a primary infection can be found. The lesions in the glomeruli in terms of the pathologist may be a proliferative capsular glomerulonephritis, an intracapillary proliferative glomerulonephritis, a hyaline thickening of the glomerular capillaries, a fibrosis of the glomeruli with progressing sclerosis and atrophy of the glomeruli, all causing both throttling of the intraglomerular circulation and retention of substances normally excreted by the kidney. Secondary to these lesions in the glomeruli, tubules hypertrophy or atrophy, interstitial connective tissue increases, and the kidneys decrease in size. The final clinical result is the same as that from a progression of the lesions of vascular nephritis; the former sometimes is called the secondarily contracted kidney, the latter the primarily contracted kidney.

There is another way of arriving at this same sort of clinical picture, one by no means infrequently encountered in our patients. This way is a progression from what began as either mechanical obstruction to the outflow of urine from the pelvis of the kidney or as a pyelitis soon accompanied by pyelonephritis. The mechanical obstruction, brought about by any form of lesion to the pelvo-uretero-cystic-urethral tract, ordinarily is accompanied by infection and a resultant pyelonephritis. Usually in these patients there is an excess of pus cells in the urine to indicate the nature of the process, but in some of these patients, when observed in the stage of the process here under discussion, pus cells practically are absent from the urine, and there are no systemic symptoms of an active inflammatory process anywhere in the urinary tract. Pyelonephritis leads to increase in interstitial tissue with atrophy of renal parenchyma, to lesions in the renal arterioles and to glomerular lesions, all of which result finally in throttling of intrarenal circulation and subsequent hypertension with, in some, eventual cardiac decompensation and renal retention causing later uremic manifestations and anemia, a clinical picture at this stage indistinguishable from that caused by either vascular nephritis or glomerulonephritis except such evidences as may remain of a pyelitis; in all three of these processes the end-result is a small kidney. That such is a frequent sequence to pyelitis makes all the more imperative the early, thorough, persistent treatment of pyelitis followed through to a cure, if possible, as a prophylaxis against these later manifestations of renal insufficiency. Surgical measures to promote free flow of urine from kidney to external world are often essential parts of the treatment. In no case of persisting pyelitis should the help of the genito-urinary surgeon be omitted.

Summary

In all of the forms of kidney lesions, as here described, the cardiocirculatory correlations play a dominant part in causing their symptoms and physical signs. Part of the proper treatment of Bright's disease, especially the chronic forms, must concern itself with the therapeutic management of the circulation; this may be, and often is, the part of the treatment that yields the best results. The physician ever should keep in mind three facts: (1) that the general circulation disturbs renal function; (2) that disturbed renal function, the result of

intrarenal lesions, has an injurious effect on general circulation; (3) that there is a close correlation between extrarenal and intrarenal circulation, each in an important way influencing the other, the two together productive of the physical signs and symptoms which we encounter in our patients whose urine shows departures from normal in specific gravity, albumin content and appearance in the sediment of casts and cells. Very simple methods of history taking, physical examination and urine study, all of which can be carried out by any well trained physician in his office, suffice for an adequate understanding of the clinical problems and for a proper therapeutic management of patients with chronic Bright's disease.

NEWER METHODS OF NEUROPSYCHIATRIC DIAGNOSIS AND TREATMENT*

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Many medical students acquire a great dislike for the field of neuropsychiatry due to the extensive anatomic and pathologic knowledge necessary for the understanding of clinical disturbances in man. This dislike is intensified later in practice because the physician soon learns that the neuropsychiatrist is very proficient in making astute diagnoses and localizations of lesions, but has little to offer therapeutically. This pessimistic point of view toward the specialty finds its basis in the frequency of degenerations and destructive processes affecting the nervous parenchyma, which, unlike other organs, has no regenerative powers. When central nervous tissue is destroyed, whether by infection, vascular disturbance, trauma or neoplasm, permanent defect is inevitable.

It is not realized that organic destructive processes are not the most frequent afflictions of nervous tissue, that disturbances of function without morphological change are even more frequently seen at the basis of disorders of the nervous system. Furthermore, it is these disturbances of function that offer opportunities for therapy, which have only recently been fulfilled as a result of increase in knowledge of biochemistry and biophysics. Strangely enough, it has been from workers in peripheral fields that the greatest advances in neuropsychiatry have come about, due just to the fact that function of nervous tissue can only be understood and influenced by biochemical methods.

I shall recount a few recent important advances in diagnosis and treatment of neuropsychiatric disorders which may profit the general practitioner to understand.

Infections

A great advance in the treatment of infections of the nervous system came about through the advent of sulphanilamide. Its intramuscular and oral use has been proven efficacious in treating certain streptococcic infections, among which is leptomeningitis, which hitherto in its purulent form was 100 per cent fatal. We have seen numerous recoveries without sequelæ. As a matter of fact, mastoid complications of otitic infections have changed in character and less often require operation. Last winter there were only three mastoid operations at Michael Reese, a 600-bed general hospital. Intracerebral complications assume less serious proportions. I have seen three patients in whom the beginning evidences of brain abscess with definite focal signs were caused to recede and operation never became necessary. Sulphanilamide used in the localized encephalitis stage or pre-abscess formation before the development of pus seems to be efficacious in clearing up the infection. Once suppuration has begun, sulphanilamide may halt progress but operative drainage is still necessary after a firm

*From the Department of Neuropsychiatry of the Michael Reese Hospital, Chicago. Read before the Michigan State Medical Society, Detroit, September 20, 1938.

capsule has formed. Since operation on acute brain abscesses is usually fatal the use of the drug may be indulged in without danger, for if suppuration requires drainage the lapse of time is beneficial rather than harmful to the patient.

Acute poliomyelitis during the last two years was with us in severe epidemic form. We recognized that this year and perhaps next year would be free from numerous cases. The experience of the last two years taught us that nasal spraying was ineffectual as prophylaxis. Vaccines have been proven dangerous. At Michael Reese we use convalescent poliomyelitis serum injected intravenously in pre-paralytic cases as soon as the diagnosis is established. Excellent results have been reported at our hospital, which has the advantage of possessing a serum center. We, however, still have an open mind regarding the value of serum, as statistical studies have not yet conclusively proven or disproven the case. I personally would recommend the serum if early diagnosis is possible on the basis of characteristic spinal fluid pleocytosis in the so-called "pre-paralytic" cases.

Fever treatment still continues to be the best method of handling late neurosyphilis of the general paretic type although tryparsamide is also extremely valuable in conjunction with fever. The early diagnosis of neurosyphilis continues to be the desideratum which we hope will be furthered by the recent national propaganda for routine serological examinations. Optic atrophy in syphilitics, long considered to have a grave prognosis, seems to be benefited by the old Swift-Ellis method of intraspinal injections of salvarsanized serum.

Regarding fever treatment, a word should be mentioned of its use in multiple sclerosis, which is considered an infection by many. Fever in this condition is entirely ineffectual in furthering a remission. The same holds true for fibrolysin, arsenicals and quinine. The promise of the last-named drug, so highly recommended by Brickner, has not been fulfilled.

Functional Disturbances

The treatment of the epilepsies is still a matter of sedation. The proper threshold-raising combination of bromides and phenobarbital is the best we have yet to offer. Lennox has been experimenting with dilantin, which does not have the sedative effect and yet is a potent anticonvulsant, and the drug should soon be in general usage. Ketogenic diet has proven successful in children only and then usually in combination with some sedation. Dehydration, recommended by Fay, has not proven valuable.

The epilepsies include a host of varied causes of the convulsant state. Patients with the history of trauma or with focal signs not due to a known organic condition such as arteriosclerosis, syphilis of the brain or neoplasm should be suspected of harboring a cortical scar. Air encephalography, when performed, may disclose a pull by the scar tissue in the presence of a distorted cerebral ventricle. Surgical removal of the scar may abolish the epileptic seizures.

A type of epilepsy and syncope has been found to be due to a hyperirritable carotid sinus which when stimulated by pressure of a collar or through neck movements evokes a reflex drop in blood pressure or a cerebral reflex producing unconsciousness and perhaps convulsive movements. The phenomenon is tested by evoking digital compression of the carotid sinus and if present attempting to abolish the reflex by injection of novocaine into the sinus. If these tests are positive the nerve supply to the sinus should be removed surgically.

Migraine has been treated by scores of drugs without consistent success. Recently ergotamine tartrate given intramuscularly in 1.0 mg. doses will abort an attack when used at the first premonitory sign or shorten an attack when it has already begun. The dosage may of necessity be higher or a single dose repeated. There is little danger of ergotism as long as infection is not present, even in the presence of considerable arterial disease. In some people the drug is efficacious when given by mouth.

Myasthenia gravis, a condition of unknown origin associated with transient attacks of severe muscular weakness on exertion, has been greatly helped with the use of ephedrine or benzedrine sulphate. Recently prostigmin in combination with atropine has yielded remarkable results in improving strength and decreasing fatigue. Prostigmin may be used orally in 30 mg. doses repeated several times daily.

Narcolepsy consisting of marked sleepiness and somnolence even during activity,

assocated with tonelessness on strong emotion, has been benefited by ephedrine. Recently benzedrine sulphate in 10 or 20 mg. doses repeated several times daily prevents the excessive sleepiness. Caution should be used so that blood pressure is not unduly elevated by the drug and that the last dose is not given too late in the day, causing nocturnal insomnia. Benzedrine does not have the claimed beneficial effect on depressions and only increases the anxiety in these melancholics.

Progressive muscular dystrophy, which is usually hopelessly progressive, is probably primarily a metabolic disorder. Excessive creatinuria due to non-utilization of amino acids is decreased by the use of glycine. However, clinical improvement or arrest of the disease has not been accomplished by this means.

Deficiency Disorders

Recent studies on vitamin deficiency seem to indicate that vitamin B depletion is responsible for serious disturbances in the peripheral nerves. Many conditions previously called neuritis are degenerations of the peripheral nerves due to deficiency in this vitamin. Alcoholism probably causes neuritic changes because of the concomitant vitamin deficiency rather than as a result of the toxic effect of alcohol. Thus therapy should not only be withdrawal of alcohol and physiotherapy but also intensive replacement therapy, using vitamin B concentrates intramuscularly or nicotinic acid. It has been suggested that neuritis of pregnancy, diabetic neuritis, et cetera, are due to similar vitamin depletion.

The problem of the neurologic complications of pernicious anemia is still unsolved. No one knows the relation of the peripheral nerve, cord or brain symptoms to the primary anemia. In the minds of many, vitamin A is the basic factor in nerve and blood changes, apparently confirmed experimentally by Mellanby. Controversial is still the question whether serious cord symptoms may be prevented by adequate treatment of the anemia, its progress stopped once it has manifested itself, and whether recovery may occur. Regardless of these arguments, early and adequate therapy by liver administered in large dosages parenterally and by mouth should be given, sufficient to keep the red count above 5 million cells per cubic millimeter.

Neurosurgery

Advances in neurosurgery have been largely in consolidation of technic and standardization of approaches to neoplasms in typical positions. Diagnostic measures using iodized oil and air by ventriculography and encephalography have improved diagnostic accuracy. Courageous surgeons like Dandy and Peet have developed operations to attack tumors in what were presumed to be inaccessible locations.

Several new procedures have been developed. Dandy has recommended an occipital approach to the fifth root in trigeminal neuralgia to avoid sacrificing tactile sensation of the face. Most surgeons still follow the old temporal approach.

Dandy considers that Meniere's syndrome is due to an aberrant loop of the anterior inferior cerebellar artery which strangulates the eighth nerve. He sections the nerve intracranially, obtaining complete relief although sacrificing the remaining hearing on the affected side.

Peet and others have developed sympathectomies for the relief of essential hypertension. Peet's splanchnectomy has given spectacular results with relief of distressing symptoms and prolongation of life. The exact indications for the operation and ultimate outcome are yet to be reported.

Putnam has successfully improved cases of extrapyramidal disease causing severe clinical dystonia by anterior cordotomy. Bucy has, likewise, improved patients with extrapyramidal rigidity by extirpation of portions of the premotor area. Learmouth has relieved bladder incontinence by severing the presacral nerve in the pelvis. Others have relieved severe pelvic pain from numerous causes such as carcinoma, or in severe dysmenorrhea, by cutting the presacral nerve.

The choroid plexus has been cauterized in infants with congenital hydrocephalus with recovery and absence of mental retardation. The mortality from this operation is, unfortunately, still very high.

Psychiatry

Progress in therapy of mental diseases has taken a sudden great spurt with the discovery of shock therapy, either by the use of large doses of insulin or the convulsant drug, metrazol. Remissions have been reported in a large percentage of cases, more

in those treated early and in the more favorable paranoias. Every medical journal has published glowing reports of cures, the final evaluation of which is not yet to be expected at this early date. It is urgently requested that early diagnoses be made of schizophrenics and immediate shock treatment instituted in order for the best outcome to be obtained.

Shock therapy has also been used in depressions with reported success. In this condition the psychological effect of the treatment is probably of greater significance than the physiological responses produced. The use of very large doses of theelin in depressions occurring during the menopause continues to be stressed, although the results are less spectacular than promised.

The greatest advance in neurological diagnosis has come through the advent of the electro-encephalograph, which, by radio amplification, enables action currents from the brain to be registered through the intact skull. Aberrant waves from brain tumors can be detected and neoplasms fairly accurately localized. Characteristic curves for various mental diseases and specific psychological trends, we hope, may be determined in the future. (Lantern slide demonstration.)

In this brief summary we have seen how slowly the progress of therapy in neuropsychiatry has been. The advent of fever treatment of neurosyphilis was epoch-making, as is the shock treatment for schizophrenia. Both were empirically derived. How much more rapid will progress be made in therapy when scientific workers in peripheral fields give us a better knowledge of the chemistry and cellular physiology of the brain!

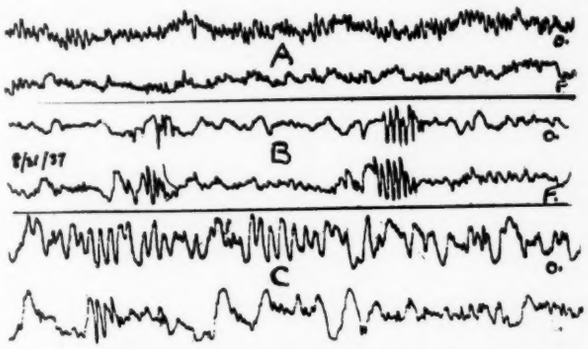

Fig. 1. Electro-encephalograms in which *O* designates the occipital lead and *F* the frontal lead. *A*, normal 10 per second rhythm. *B*, epileptic excitation showing onset in frontal region. *C*, Irregular waves in organic deterioration.

REGIONAL OR SEGMENTAL ENTERITIS "ILEITIS"*

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During the last five years, there has been shown an increasing interest in a new clinical syndrome which has more or less captivated the gastro-enterologists and abdominal surgeons. Because of its diverse clinical manifestations, the nomenclature applied to this syndrome has been rather confusing. It was not until 1932 that Crohn, Ginzburg, and Oppenheimer[3] clarified a much confused terminology, and showed clinically and pathologically that the descriptive terms, chronic cicatrizing enteritis, non-specific, benign, or infectious granulomata of the intestine, and phlegmonous enteritis, are all manifestations of the same clinical syndrome of terminal ileitis. However, the pathological process itself was not entirely limited to the terminal ileum, but as Brown, Bargen, and Weber[2] showed in their series of eighteen cases, the cecum and part of the ascending colon were involved, and consequently the name, regional enteritis was applied in preference to the term, terminal ileitis, and more recently Lewisohn[8] has suggested the term, segmental enteritis, which, from a clinical pathological point of view, is preferrable to the term, ileitis. But because the term, regional ileitis, has had precedence over the term, enteritis, most general practitioners are using all of these terms more or less interchangeably.

A specific etiological factor is not known, but Felsen and Gorenberg[4] in 1935 traced

*Read before the staff meeting at St. Mary's Hospital, Marquette, November 5, 1937.

eleven acute and eleven chronic cases of distal ileitis to bacillary dysentery. However, Crohn reported only one positive agglutination against dysentery organisms in ileitis. Probstein and Gruenfeld[13] believed that the greater frequency of this lesion in the distal ileum might be due to stagnation at the ileo-cecal valve and to the greater abundance of lymphatic tissue there, rather than in any other of the bowel segments, and that this might favor bacterial absorption. Reichert and Mathes[14] injected irritating and sclerosing material into the mesentery and subserosal lymphatic vessels, and produced a sclerosis and thrombosis of the lymphatics which led to a lymphedema of the intestinal wall. All these various theories tend to show that chronic low-grade infection with lymph stasis are concerned in the pathological physiology of the syndrome. There seems to be no predilection for race or sex, and the percentage of cases are about equally distributed between the sexes.

The disease is essentially seen in early adult life, however, a wide range of age incidence is seen, ranging from patients as young as fourteen years of age, to individuals in their late sixties.

Grossly, the pathological process is more or less confined to the terminal ileum, and may show some involvement of the cecum. The mesentery of the ileum and the adjacent lymph glands are also usually involved. In the acute stages, the mesentery is usually thickened and studded with enlarged mesenteric glands. The segment of bowel involved is usually reddish purple in color and appears more or less swollen. The gross appearance, as Jackson[5] so aptly states, is "like a soggy hose." The pathology may be entirely limited to one segment of the ileum or, as Pemberton and Brown[12] have shown, there may be multiple involvement or "skip areas" throughout much of the small bowel. In the more chronic stages of the disease, the edema and engorgement have more or less receded, leaving a grossly thickened wall which has a leathery appearance, as well as feel. Peculiarly enough, there are very few adhesions.

The cut section reveals a marked diminution in the size of the lumen of the involved area, due to hypertrophy and hyperplastic changes in the elements of the submucosa. In the more advanced stages, multiple fistula may be seen perforating into the general peritoneal cavity. Obliteration of the lumen of the distal ileum is seen in the obstructive stages, usually preceded by a fine opening which gives rise to the characteristic roentgenological "string" sign. The fibrosing process reduces both the circumference and the lumen of the bowel, and the thickness of the wall may vary from 5 to 15 mm. The mucosa, as Adams[1] has shown, is for the most part, diffusely ulcerated. In some cases the mucosa between ulcerations is thrown into coarse papillary folds, producing pseudo-polypoid masses, such as are seen frequently in chronic ulcerative colitis. Adams made an exhaustive microscopic study and found that the process simulated ulcerative colitis in that the mucosa is usually absent, and the submucosal tissues are replaced by vascular granulation tissue with a marked non-specific chronic inflammatory process, characterized by an infiltration of lymphocytes, plasma cells, large mononuclears and polymorphonuclear eosinophils. Although he showed that the most involved area seems to be the submucosa, there is, however, in almost all of the cases, a definite involvement of the mesentery and muscular serosal layers. Furthermore, the mesentery glands are usually enlarged and show a similar non-specific chronic inflammatory process, and huge foreign body giant cells with as many as thirty nucleii are present, a finding which is not observed in ulcerative colitis. These findings suggest tuberculosis or lues as a causative agent, however, it has not been proven.

Symptoms

Jackson,[5] in his recent article, uses Crohn's[3] original grouping of four clinical types as the easiest way of evaluating the progressive stages.

Group 1.—The symptoms of this group simulate those of acute abdominal inflammation, appendicitis in particular. Pain and tenderness in the right lower quadrant, accompanied by cramps, fever, and leukocytosis occur, and there may or may not be a palpable mass. Operation reveals a greatly thickened and reddened terminal ileum which has a tendency to bleed. The mesentery is edematous, with enlarged hyperplastic glands. The appendix may be involved by contiguity, but it shows no mucosal inflammation.

Group 2.—Symptoms suggestive of ulcerative colitis occur in the second stage with diarrhea and cramp-like abdominal pain, and occasionally blood and mucous are found in the stool. Severe anemia may develop, with marked loss of weight, malaise, and slight fever.

Group 3.—The stenotic stage follows the ulcerative phase. As a result of the extreme thickening of the intestinal wall, the lumen of the bowel gradually becomes constricted. The healing of the mucosal ulcerations tend to bring about an obliteration. This is most marked in the region of the ileocecal valve. The symptoms are those of partial obstruction of the small intestine. A mass is usually palpable; violent cramps, occasional attacks of vomiting, and constipation may occur.

Group 4.—In this stage multiple fistulas are formed that may open either internally or externally through the abdominal wall. Roentgenological examination may reveal these fistulas which persist and resist surgical measures at closure, unless the bowel is resected.

Jackson also calls attention to the work of Kantor[6] who emphasized certain roentgenological findings that have become more or less pathognomonic of regional enteritis. Once the pathological process has been sufficiently established to cause ileal stasis, the following signs may be visualized roentgenologically, according to Kantor:

1. A filling defect in the terminal ileum with a mild ileal stasis and distension proximal to the defect appears.
2. And as the stenosis increases a fine line of barium is seen in the ileocecal junction, which was described by him as the "string" sign.
3. A filling defect may be seen just proximal to the cecum.
4. An abnormality in the contour of the last filled loop of the ileum may be visualized.
5. The ileac loops just proximal to the lesion may show dilatation.

Treatment

The treatment of regional ileitis is essentially surgical, and usually necessitates removal of the diseased segment with reestablishment of the continuity of the intestinal tract. The type of procedure to be used depends a great deal upon the pathological process that is present. No set technic is indicated since every case reported by the various clinics has its own personal problem and the surgical procedure is dependent upon the versatility of the operating surgeon. Mixter[11] states that "our best results have been obtained by the one-stage ileocecal resection and closure without drainage." This type of operation is more readily applicable to the early stages when complications are minimal. When the case is seen in the later stages, a short-circuiting operation such as an ileocolostomy is advisable, since the involved segment is put to physiological rest, and healing may occur, and the patient can be watched for further progression of the symptoms. In the meantime, the general condition of the patient

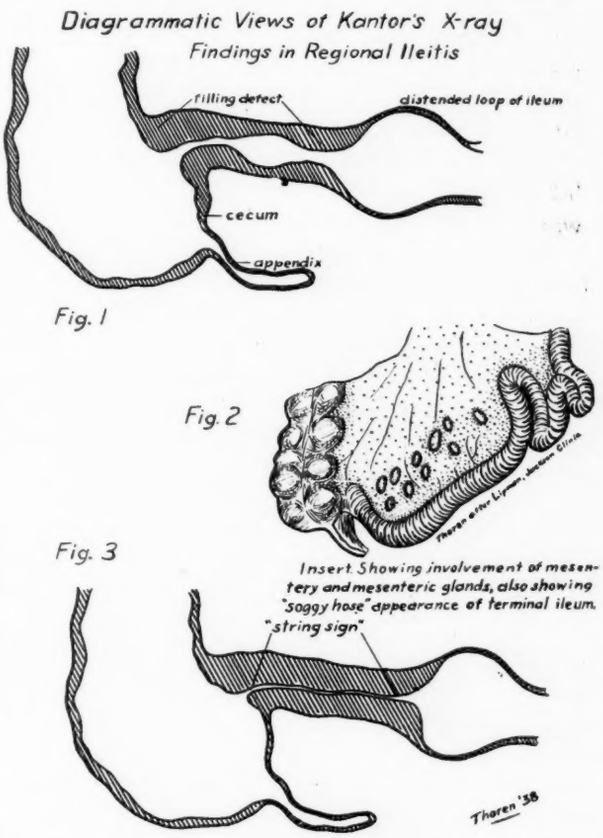

Fig. 1. Sagittal section showing marked filling defects due to infiltration of the submucosa. Early pseudo-polypoid configuration of the mucosa is seen.

Fig. 2. The pathologic process is more or less confined to the terminal ileum and may show some involvement of the cecum. The mesentery of the ileum and the adjacent lymph glands are usually involved. In the acute stages, the mesentery is thickened and studded and with large mesenteric glands.

Fig. 3. Obliteration of the distal ileum is seen in the obstructive stages, usually preceded by a fine opening which gives rise to the characteristic roentgenologic "string" sign.

is enhanced and he becomes a better risk for more radical procedures at a subsequent date, when a resection of the involved area can be done with a minimal hazard. Pemberton and Brown[12] think that the interval between the stages of the procedure should be varied, and should depend chiefly upon the general condition of the patient, the nature of the complicating lesion, and in their experience, they have seen no progress of the disease occur between the first and second stages, when the interval did not exceed six months. On the contrary, there has been without exception, a very marked subsidence of the inflammation which greatly facilitated resection. Knapper[7] advises an immediate radical resection as far as the transverse colon, if there are no insurmountable

difficulties. When the condition of the patient is poor or abscesses are present, an ileotransversotomy should be done at first and resection should be delayed. In the chronic stage resection is indicated. Meyer and Rosi[9,10] state that occasionally the condition may resolve and a spontaneous cure may result. However, they state that a short-circuit operation without resection of the mass completely relieved the symptoms in about 50 per cent of the patients upon whom it was performed.

Adams[1] states "a two-stage operation was performed in twice as many cases as the one-stage procedure and is generally deemed safer by us, and other contributors on this condition. The short-circuiting ileocolostomy is dangerous since it leaves the diseased bowel as a source of infection, chronic perforation abscesses, fistulæ, and is a constant menace to the health of the patient. Operation in the very early stage should be avoided if possible, and if it becomes necessary to establish with certainty the diagnosis in an acute abdomen and the disease is found in its early acute phase, it should be handled with great conservatism, limiting the operation to minimal exploration only, placing the patient on a strict peritonitis or Ochsner regime, and delaying the resection to a subsequent chronic stage of the disease."

The underlying infection, in spite of its chronicity, is of more or less virulent nature, and peritonitis is the most frequent complication seen. Peritonitis may be primary, and encountered at the time the patient is seen in the acute stage, or may be secondary to either one of the surgical procedures, mentioned above. The peritonitis seen secondary to the perforating type of lesion may be of a fulminating nature if the contents of the diseased bowel are extruded into the peritoneal cavity, or else it may be localized, giving rise to abscesses in the region of the involved segment. Pulmonary infarcts are not uncommon, and the associated pathology due to a chronic debilitating disease should always be borne in mind, since the heart and kidneys seem to suffer from the toxic state present.

Diagnosis

The direct diagnosis of regional enteritis is dependent upon a careful observation of the patient. When the picture of an acute abdomen presents itself in the early stages of the disease, acute appendicitis is the most important acute inflammatory condition of the abdomen from which regional ileitis must be differentiated. A conservative attitude should be assumed and an exploratory McBurney incision should be made, so that the ileocecal region can be explored, and if an appendicitis is found it should be removed, but if there is involvement of the ileum and a sausage shaped tumor is palpable or visualized, the patient should be put on Ochsner regime, and the abdomen should be closed without drainage.

An acute gastro-enteritis is at times hard to rule out, but here the history of a dietary indiscretion, frequent diarrhea, and positive agglutination studies for the bacillary dysentery group will be useful. Ulcerative colitis is usually differentiated by proctoscopic studies and roentgenological visualization of the typical features of this disease. In the later stages in which obstruction is present, carcinoma of the cecum and ascending colon is differentiated by Kantor's five roentgenological signs. In the fistula stage actinomycosis is differentiated by demonstrating the sulphur granules on pieces of gauze which later can be shown to contain the Actinomyces.

Lymphogranuloma inguinale, which is now known to involve the entire gastrointestinal tract, because of the general dissemination of the virus, is differentiated on the basis of the Frei test. Acute mesenteric adenitis is only differentiated by an exploratory procedure, when the acute stage of regional ileitis or appendicitis cannot be ruled out.

Prognosis

The prognosis is dependent upon the stage in which the patient is first seen, and if the patient is not in too debilitated a condition, the prognosis is good, but if seen in the later stages of the disease, prognosis should be guarded, since the mortality is about 11 per cent.

Summary

A brief review of the salient features of regional ileitis is presented with a reference made to certain articles of import which will be of definite interest to anyone interested in this syndrome; since the increasing number of cases being reported brings this subject into surgical prominence, it becomes necessary for every surgeon who sees a case

of acute appendicitis to think of regional enteritis.

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THE VALUE OF MEDICAL ORGANIZATION TO THE PUBLIC AND THE PROFESSION*

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The medical ideal did not spring into being, full grown, in any age or country, like Minerva, from the head of Jupiter; it has grown through the centuries, taking to itself something of Hippocrates, of Galen, of Paracelsus—to name the ancients; it has been enhanced by Harvey, Lister, Osler, Reed, Noguchi—to name others at random; it has acquired stature because of the work of artists like Leonardo da Vinci and scientists like Pasteur; it has become a living personality in the character of Ian MacLaren's "Doctor of the Old School," in Dr. S. Wier Mitchell's delightful "Dr. North" and in that most modern "Horse and Buggy Doctor," Kansas' own Hertzler.

The passage of time, with the progress of civilization, and the unfolding of science have broadened the meaning and the significance of that composite of noble personal qualities and high standards of service associated today with the appellation "The Doctor."

An ideal is always a superman but the medical ideal is not the superman of Nietsche, who tramples on humanity to raise himself; the medical ideal is that of a great healer, a great helper of mankind. Naturally, being the ideal, this Doctor of Medicine is such a combination of the noblest of qualities and the highest degree of skill that no one physician ever quite attains them all, yet the individual who is not filled with a desire to attain, to possess within himself all he humanly can of them, is out of place in the medical profession.

A group like yourselves needs hardly to be reminded of the rôle of science in the training of a physician. It is not out of place, however, to remind you that all through his life the physician must continue to be "the sober searcher, the cautious striver" as Browning makes his Paracelsus phrase it; that the physician must have a passion for accuracy in thought and action, an insatiable curiosity for new truths and a willingness to test for truth or falsity all conclusions and to judge, without prejudice, the results of these tests. In other words, to be "embued" as was Paracelsus "with comprehension and a steadfast will."

Since disease is protean in form and infinite in the variety of its manifestations, the physician must be keen to observe all things. Cure depends on finding and recognizing the condition to be cured. The good diagnostician uses all his senses and all the aids that science has added to those senses to discover, classify, compare and correctly judge all that bears on the health or sickness of his patients. Those who cannot do this cannot be good physicians and in this connection let me return to the ideal of the medical man and pay tribute to those great teachers and clinicians who have given to their students such worthy examples to follow in the bedside study of disease, and to those practicing physicians who have been willing to share with others, especially the

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younger men, the wealth of their bedside experience.

Success in the art of healing demands of the physician more than ordinary understanding of human nature, and a sympathetic appreciation of its weaknesses. There must be an appreciation of all the values of human life, and a recognition—nay, a conviction—that in spite of appearances, life is not only good but supremely good and to be both defended and extended. It is these qualities of personality that make much of the basis of the patient's confidence in his physician and this confidence in the physician is the medical man's strongest ally in battling disease.

The physical demands on the physician are great, even in our modern day and in our modern cities. Disease works at no fixed hours; the outcome of a crisis is sometimes an endurance struggle for both the doctor and the patient. An epidemic will not delay its attack because a physician needs a vacation. Let him who would enter the practice of medicine make no mistake in this.

Necessary as is the physical stamina of the physician, moral stamina exceeds it in importance. The person who lacks moral backbone and ethical integrity does not belong in the medical profession. It is no longer demanded of physicians that they take the Hippocratic oath before entering the practice of medicine but the very greatness of the task before them, the very inheritance they assume when they follow in the train of those who have preceded them, challenges them to make that oath the guiding principle in their life's work. Whoever enters the practice of medicine enlists in an army to defend all humanity against the attacks of disease. The need for this defense is alone the justification for the existence of the profession and for the enlistment of individual physicians. Everything else must be subordinate to this. The physician who withholds any effort, or puts any consideration ahead of this defense of the health of humanity, is a deserter in the face of the enemy.

This ideal of self-sacrifice, sympathy and true humanitarianism, is not something above and beyond daily work, to be eulogized on the rostrum and neglected in the sickroom or the office. Neither is it a garment to be assumed and laid aside at will or to suit circumstances; there must be unrestricted devotion to the cause of human health; whoever puts other ambitions above this is misplaced in the practice of medicine. If this foundation is firm, the physician can build his medical career as high as his scientific and other attainments and abilities permit. Lacking this foundation any structure he may raise will be only a deceptive shell.

Progress against disease depends on the proper application of all that science can contribute. To add new truths to the armamentarium of those who battle disease (for surely new knowledge, a new approach to an old problem, may as fittingly be called his armamentarium as his medicines or instruments), scientists and medical men in all ages have turned away from financial rewards, have sacrificed everything, even to their own health or their lives. The heroes of medicine, to whom highest honor is paid, are those who have contributed most to its advance, impelled not by the hope of pecuniary rewards but by the very might of the need they saw about them or the untouched wealth of nature's secrets. Individuals, universities, laboratories, and research institutions of every kind are pushing further the boundaries of scientific knowledge that humanity may reap the benefit in greater degrees of health, lessened sickness and diminution in pain and suffering. It is the function of the profession as a group, and of physicians as individuals, to use this knowledge—theirs has been the special training for this task.

Each new contribution should be tested, approved, or rejected, and if found of value, distributed through professional meetings, books and periodicals to the whole body of the profession. In this work of distributing new knowledge to physicians medical societies play a great rôle.

The general public needs information to assist it in maintaining health and in securing proper medical care when it is needed. Public education in matters of health is a prime duty of the individual physician and of his professional group. The advance in medical science is so rapid there is always a wide gap between professional knowledge and the general lay understanding of medical subjects. Only by so educating the public, that this gap may be kept as narrow as possible, can the profession be sure of maintaining the proper understanding and confidence between itself and the public. If this

chasm between the professional and popular knowledge is not bridged by truthful and scientific information, it will be by unscientific trash.

The quack and nostrum peddler fatten on the ignorance which lack of real and proper medical knowledge on the part of the public permits to accumulate. Charlatans and medical pretenders are quick to exploit the credulity, the misconceptions, the half truths and the prejudices and superstitions of the misinformed. If the medical profession is to protect the health of the people, it must be eternally vigilant to supplant with real medical knowledge the fallacies and harmful activities of cults, quacks and the sellers of nostrums. Standards for medical education, drugs, appliances and of the actual practice of medicine mean nothing if they are not understood and observed. Professional organizations are the guardians of such standards for the protection of the health of the public. It is the duty of these organizations to educate the public to an understanding and appreciation of, as well as a demand for, a high quality of medical service. The physician who violates either the scientific or ethical standards of his profession sins against both his professional group and the public itself to whose service he is dedicated. When the individual physician joins his professional group he puts himself on record before the other members and before the public as subscribing to the ideals, the objects and the standards of the group. It is therefore the right and even the function of the group, in the interests of the health of the public, to exact adherence to these standards and to condemn disregard of them.

The individual who possesses to a creditable degree the qualities of the medical ideal, and who demonstrates his ability to acquire the necessary information arranged for him by his medical school enters the practice of medicine as a heavy debtor to his professional predecessors and to his immediate associates, be they individuals or the group.

This is a debt of honor which he owes, to collect which no bills are ever sent and no suits filed. On the contrary, it is a debt every payment on which brings new resources to the debtor himself as well as to all the other members of the profession.

No practicing physician can wholly withdraw from the professional group. He cannot escape its assistance any more than he can escape his own heredity. He must use the knowledge it has provided and will continue to provide. He can only choose whether he will be an active, a passive, or an antagonistic member of his profession. As an active member he will gladly bring his individual contributions of time, money, and knowledge, knowing that, however large his contributions, they will be small indeed in comparison to what the profession will freely give him. He may become a passive member, taking what is offered and giving as little as possible in return.

Finally, he may try to withdraw from the group and refuse any formal allegiance or coöperation, rather standing to one side to criticize and to be antagonistic to those who are seeking to develop and improve the group for the benefit of the public.

It is probable that very few enter medical practice with the intention of adopting this latter antagonistic or individualistic attitude but by neglecting to affiliate with the group, the young physician unconsciously, mayhap, joins the unorganized. He finds himself associated, if not in actuality, at least in the minds of his fellow physicians within medical associations and in the eyes of the public, with those who to varying degrees have rejected professional standards.

The wealth of medicine is not in buildings, equipment, or any tangible things. This wealth lies in the tested, proven experience, in the accumulated scientific knowledge, in the ideals and traditions of high ethical personal qualities and the ever-advancing standards of medical practice and methods and in the confidence of the public in the numberless men and women of medicine as they strive to guard the public health and individual lives.

Few among us have failed to thrill, sometime in our lives, to the story of the "Three Musketeers" whose "all for one and one for all" were dedicated to the service of their king or country. There is a greater thrill for the student of medicine when he appreciates that the "all" of the wealth of the profession he has chosen is most truly given to him, the "one," in his service to the welfare of humanity. If the student or physician does not appreciate that he has a duty as "one" to contribute, through membership in a medical society, for "all," then he fails in a full appreciation of the service he

has undertaken when he became a physician.

In the end he shuts himself away from the chance to a voice in determining the standards of his profession and its relations to the public. He excludes himself from helpful coöperation in those times of great national emergency that offer an opportunity for helpful contributions to the community of which he is a member. He has a much less ready access to the ever-increasing store of scientific knowledge that is being developed, tested, and discussed within the professional associations and he loses the stimulation of contact with his confreres.

The unit of professional organization in the United States is the County Medical Society, membership in which automatically confers membership in the State Medical Society and in the American Medical Association.

The American Medical Association was organized in 1847. It now comprises some 2,000 county medical societies with an aggregate of more than 109,000 members. The legislative and policy-forming powers of the physicians who are members of county medical societies, for the states and for the United States, reside in bodies known as the House of Delegates, of the several states and of the American Medical Association. The members, or delegates, who compose the House of Delegates of the state medical society, are elected by the members of the component county or district medical societies within the jurisdiction of the state. The number of delegates to which a county medical society is entitled in the House of Delegates of the state medical society is determined by the number of members of the county or district society.

The members of the House of Delegates of the American Medical Association are elected by the constituent state associations and by the sections of the scientific assembly and of delegates from the Medical Departments of the Army, and the Navy, and the Public Health Service, appointed by the Surgeon-General of the respective departments.

The number of members of the House of Delegates of the American Medical Association to which state medical associations are entitled is determined by apportionment according to the active membership of the constituent associations except that the Army, Navy, Public Health Service and the scientific sections are each entitled to one delegate.

County and state medical societies comprise a thoroughly democratic organization —the American Medical Association. The method of organization and representation is equally democratic in all matters pertaining to legislation and policy-forming for its members. The County Medical Society is the center of the medical activity within its jurisdiction. It is the means through which professional standards are advanced, and professional relations with public and private organizations are determined for the locality. The number and importance of such relations are constantly increasing. Such questions as care of the indigent sick, special provisions for medical care for low income classes, relations with public health departments, workmen's compensation, group hospitalization, contract practice and a growing number of similar problems cannot be properly dealt with by the individual physician acting alone. They are professional questions and can be properly handled locally only by the County Medical Society.

The individual can have an effective share in settling these questions only if he is a member of his professional group. As a member he has an equal voice and vote in determining relations of most vital interest to him and his patients. Through the County Medical Society he assists in selecting the delegates to the State Medical Society, which determines state-wide policies. Within recent years social and economic relations in medicine have invaded nearly every state legislature. Those questions concerning workmen's compensation, care of the indigent sick, public health, compulsory sickness insurance, and, in the immediate present, all the ramifications of the Social Security Act are raising a host of state administrative and legislative questions that affect the practice of medicine, the welfare of the medical profession, and the health of the public.

Every physician is interested in the outcome of these questions. The way in which they are settled will influence his life, work, income, and the welfare of his patients. The only opinion that can be valuable and helpful in the study and attempts to solve the medical phases of these problems is that of the medical profession itself. The only way by which that opinion can be made effective for all physicians is through the co-

operation of state medical societies with their national organization, the American Medical Association.

All the officers, bureaus, councils, committees and departments of the American Medical Association exist to carry out the policies fixed by its House of Delegates which, in turn, is the organ and creation of the entire membership acting through the County and State Medical Societies.

Many of these agencies are fact-finding, standardizing and educational bodies. They accumulate data concerning drugs, medical appliances, hospitals, education, ethics, physical therapy, apparatus, public health, medico-legal problems, medical economic conditions, and many other factors which contribute to better medical practice.

Every effort of the individual physician to acquire more medical information and to keep himself abreast of medical progress, every activity of medical organizations to encourage high standards of medical education, to disseminate health information, to distinguish the false from the true, to establish principles of ethical conduct is designed primarily to improve the medical and preventive medical services for all the people.

It is not by mere coincidence that the objects of the American Medical Association, found in Article 2 of its Constitution and the physician's responsibility, defined in the opening section of Chapter I of the Principles of Medical Ethics, are so nearly identical in meaning.

The objects of the Association are to promote the science and art of medicine and the betterment of public health. The first sentence of the Principles of Medical Ethics reads: "A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession."

The objects and standards, which the medical profession has adopted and which it is continuously seeking to promote and elevate, are self-imposed. Although efforts to increase medical knowledge, to perfect the methods of medical education, to develop public health and preventive medicine, and to make good medical care available to everyone are associated with the names of many devoted individual physicians, past and present, it would be difficult to evaluate accurately and completely the accomplishments in all these and many other fields that must be credited to medical societies. The advances made by medical societies in the promotion of the science and art of medicine and the betterment of public health have been possible because of the devoted physicians who have worked together as members of these societies.

These physicians and their medical societies combine to contribute to the increasing stature of the medical ideal and will, in the history of medicine, assume their appropriate places in the list of men and organizations that devoted their energies and resources to the benefit of humanity.

HAVE YOU EVER WORRIED ABOUT A DOCTOR'S HEALTH?

(The Lapeer County Press)

We called at the home of a doctor one evening recently. He had been out for several nights. Early in the evening the doctor had dropped sound asleep on a davenport in the living room—sleeping the sleep of the exhausted. We apologized and suggested that we would call another time . . . when the phone rang. He arose as in a trance and walked over to answer it. "Yes . . . yes . . . some temperature? . . . well, I'll be over right away."

Slowly he turned around. He stared at us, rubbed his eyes, and said, "Hello, when did you come?" The man was hardly awake as he hustled into his hat and coat and with an apologetic, "I'll be back in a little while," he left for the home of some sick person.

Do you ever worry about your doctor's health? That isn't as ridiculous as it sounds. He may be rigid in his dictates about how you shall protect your health; he may prescribe an exact routine which will prolong your years . . . but, he is absolutely and almost criminally careless about his own health. He has schooled himself to forget his own well-being to protect yours. He jeopardizes the future of his own wife and children to watch over yours.

"Yes," you reply, "but isn't he paid for it?" Is he? Doctors are short-lived. Their average expectancy of life is the lowest of the professional groups. They are valuable men in every community. We are not sure there is anything we can do about this but recognize it—and appreciate it. If socialized medicine and surgery becomes the rule, as some reformers would have it, we then would appreciate the family doctor.

UTERINE LEIOMYOSARCOMA WITH METASTASES TO THE LUNGS AND BRAIN

Report of a Case and Review of the Literature

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The incidence of malignant change in leiomyoma is generally considered to be relatively rare. Ewing[2] states that uterine leiomyoma very rarely become malignant and that he has seen but three malignant uterine myomas (in addition to two with local recurrence) during the preceding twenty years. He quotes Winter as having found none in 753 cases of myoma. Kimbrough[5] found that sarcomatous degeneration of all uterine myomas which he reviewed between 1900 and 1933 came to but 0.76 per cent. Imhäuser,[4] on reviewing the literature in 1924 regarding the incidence of uterine myosarcoma, reported that among 13 observers this incidence ranged between 0 to 9 per cent. Imhäuser himself found the incidence to be 6 per cent, his study being based on 208 patients admitted with myoma between 1918 and 1923. Nordland and Larson[6] in 1933 stated that only about 1 per cent of uterine myoma became sarcomatous, while in 1936 Floris[3] stated that sarcomas in uterine myomas were most frequent but he gave no figures regarding the frequency.

The incidence of intracranial metastasis of malignant leiomyoma, regardless of the primary, is apparently still more infrequent. Ewing[2] states that a group of leiomyoma become malignant and metastasize to the liver, lungs, kidneys, peritoneum and lymph nodes but makes no mention of intracranial metastasis. The primary, he states further, is usually found within the uterus, stomach, esophagus and intestines. Cohen[1] as late as 1932 was unable to find any report of metastatic intracranial leiomyosarcoma in the literature. He then went on to report the case of an elderly white male who had a primary leiomyosarcoma of the left kidney with metastases to both lungs, right kidney, adrenals, ileum, mediastinal and mesenteric lymph nodes and brain. A search into the literature, however, has been unsuccessful in the finding up to the present time, of any other report of metastatic intracranial leiomyosarcoma regardless of the site of the primary. Therefore, a case of uterine leiomyosarcoma with metastases to the lungs and brain is hereby submitted.

L. W., a married white woman, forty-eight years of age, was first admitted to Harper Hospital on March 31, 1936. Other than having been markedly constipated for years the patient had been in good health until June, 1935, when she experienced pain in the right lower quadrant of the abdomen with an associated nausea for which she had an appendectomy with an uneventful recovery. In January, 1936, she developed a fresh rectal hemorrhage which was followed by minor periods of bleeding, increasing fatigue and a loss of about five pounds in weight.

The past history revealed that the patient had complained of frequent occipital headaches for the past several years. Occasionally she experienced some swelling of the ankles. In 1918 she stated she had an attack of influenza with an associated jaundice. In 1935 she had her tonsils and adenoids removed and later she underwent an operation for repair of perineal lacerations. Since the latter part of 1935 she had complained of a dry irritating cough with no pain in the chest. Her menses had been of the 28 day interval type with flow lasting about five days. These periods were usually associated with dysmenorrhea until the menses became irregular the past six months with occasional slight spotting. Her habits had been normal except for the smoking of cigarettes in excess. She was married to her first husband in 1906 and had two full term pregnancies. Her husband died of scarlet fever. One child died at the age of five years of tuberculous meningitis while the other died an accidental death at the age of 21 months. She also had a miscarriage during the third month of pregnancy, the cause for this miscarriage apparently being unknown. In 1916 she was married to her second husband. There were no pregnancies following this second marriage. The patient's family history was negative.

Examination.—The general physical examination was negative except for a blood pressure of 172 systolic, 88 diastolic; and for a scar in the right lower quadrant of the abdomen. Temperature, pulse and respiration were normal. Roentgen examination of the chest was negative except for a small area of calcification on the right side at the level of the sixth rib posteriorly. There was also some thickening of the pleura on the left side. Fluoroscopic and roentgen examinations following a barium enema showed the presence of a megalocolon. Furthermore, there was seen a sixth lumbar vertebra with an anomalous bat-wing process on the left side and definite irritative changes in both sacro-iliac joints. The electrocardiogram was normal. Laboratory examinations which included a urinalysis, complete blood count, blood sugar and non-protein nitrogen determinations, Kahn reaction, van den Bergh and icteric index tests and blood calcium and phosphorus determinations were all normal. Stool examination showed the presence of occult blood.

Note: We are indebted to Plinn F. Morse, M.D., and Lawrence Reynolds, M.D., pathologist and roentgenologist respectively, at Harper Hospital, for the histo-pathological and radiological studies in this presentation.

Treatment and Course in Hospital.—On April 4, 1936, the patient was given a spinal anesthetic for the megalocolon with a good result. She was discharged on April 9, 1936.

On March 2, 1937, the patient was again seen with an interval history of pain in the right side of her abdomen since January, 1937. This pain was not associated with the taking of food nor with nausea or vomiting. Occasionally she experienced chilly sensations with a feeling of fainting. She also complained of a peculiar tightness in the chest, stating that it felt as if the chest walls were being pulled together. Three weeks before her re-admission she had a severe uterine hemorrhage accompanied by marked pain in the lower abdomen and by extreme weakness. Physical examination at this time revealed tenderness in the right lower quadrant of the abdomen without spasm. The blood pressure was 130 systolic, 80 diastolic. The gynecologist reported, however, "fibroid uterus possibly associated with stenosis of the cervical canal giving rise to colicky pain on attempt to expel uterine contents." Laboratory examination showed a normal blood count except for a hemoglobin of 69 per cent (Sahli). Urinalysis, blood sugar and non-protein nitrogen determinations and Kahn reaction of the blood were all negative.

Two days following her re-admission the patient had, under nitrous oxide and ether anesthesia, a pan-hysterectomy and bilateral salpingo-oophorectomy. The uterus was found to contain many fibroid nodules which had a malignant appearance. Histological examination of sections taken from these nodules was reported as follows: "Multiple leiomyofibromata. One of the nodules has undergone pronounced sarcomatous transformation. Chronic endocervicitis, procidentia and cystic glands. There is also some sclerosis of the villi in the oviducts and hyalinization of the ovary." (Dr. Morse)

On March 24, 1937, roentgen examination of the chest revealed diffuse metastatic areas throughout both lung fields. The heart and aorta were normal and there were no abnormal mediastinal shadows nor metastases to the bony structure forming the chest. (Dr. Reynolds)

The patient was thereupon placed on a course of therapy which included the intravenous injection of colloidal lead phosphate and deep roentgen-ray irradiation according to the table below:

March 24—700 roentgen units in air to left lateral pelvis.
March 25—700 roentgen units in air to right lateral pelvis.
March 26—600 roentgen units in air to posterior pelvis.
March 27—700 roentgen units in air to anterior pelvis.
March 29—104 mgm. colloidal lead by intravenous injection.
March 31—700 roentgen units in air to chest; left posterior oblique.
April 1—700 roentgen units in air to chest; right posterior oblique.
April 2—800 roentgen units in air to chest; anteriorly.

The patient was discharged on April 4, 1937, with a diagnosis of "myosarcoma of uterus with metastases to lungs."

The patient was re-admitted for the third time on July 4, 1937, with an interval history of frontal headache of three weeks' duration, visual disturbance beginning on June 29, and disturbance of mentality which had seemed "hysterical" in nature. She had exhibited episodes of an increased psychomotor activity bordering on an agitated depression. Physically, however, she had improved and had gained in weight. The general physical examination was entirely negative except for a temperature of 99.2 degrees Fahrenheit. The ophthalmologist reported that the patient could only count fingers at one meter with each eye separately. He found the external examination of the eyes to be negative. The pupils reacted to light and accommodation, The fundi showed some blurring of the optic discs while in the right fundus he reported the presence of two small brown spots along the superior temporal artery. The visual fields showed a right homonymous hemianopsia.

The neurological examination was as follows: The patient was right handed. Station and gait were normal. There were no tremors, fibrillations, localized weakness or abnormal associated movements. The equilibratory and non-equilibratory tests were carried out satisfactorily. There was no impairment in the doing of skilled acts. Speech presented a mixed sensory and motor aphasia. All tendon reflexes were present, active and equal, but the abdominal reflexes were all absent. There was a qustionable Babinski sign on the left side. Sensory examination was negative. The pupils reacted sluggishly to light while ophthalmoscopic examination revealed some blurring of the discs bilaterally without papilledema. There was present grossly a right homonymous hemianopsia. The Rinné test showed a reversal of the normal formula on the right in that bone conduction could be heard longer than air conduction. Examination of the external auditory canals and ear drums were negative. The remaining cranial nerves were normal. Mentally the patient showed some impairment of memory for recent as well as for remote events. She was disoriented for time and place but not for person. She seemed somewhat apprehensive, especially regarding her aphasia. There were no apparent relusions or hallucinations. She complained of inability to see, or headache and of a "whirling" sensation in the head. At this time she was not agitated, nor was there a marked increase in her psychomotor activity.

Laboratory examination showed a mild secondary anemia. Urinalysis and blood sugar and non-protein nitrogen determinations were normal. Roentgen examination of the chest revealed a definite increase in the size of the metastatic nodules as well as in their number. Both lung fields were involved especially in the lower lobes. (Dr. Reynolds).

The patient was discharged on July 10, 1937, with a final disagnosis of "myosarcoma of the uterus with metastases to lungs and brain."

On July 11 the patient complained of an increasing inability to see. On July 16 she had a convulsive seizure characterized by spasticity of the right upper and lower extremities with a positive Babinski sign on the right. On July 21 she had another convulsion in the morning with spasticity of the right side of the body and with marked difficulty in breathing. Her breathing became progressively more difficult with an associated cyanosis until late in the afternoon when she had another convulsion at which time she expired.

Autopsy.—Following a midline incision the abdomen was explored first. The tissues seemed dry throughout. The liver had two brown pin-point spots visible, but otherwise there were no signs of malignant areas in the abdominal cavity. The kidneys were normal in size and the capsules stripped with ease. There was a small amount of scar tissue about the sites of the appendectomy and hysterectomy. The mesentery showed several hard calcified nodules which resembled old calcified tubercles. The chest was opened and the heart found to be contracted, small and normal. There were no signs of endocarditis, pericarditis, myocarditis, or tumor metastases. Both lungs were peppered with metastases ranging in size from one-eighth to one and one-half inches. The mediastinal lymph glands were

normal in size and not enlarged. There was no evidence of tuberculous processes. Sections were taken for microscopic examination from the kidneys, adrenals, pancreas, liver, mesenteric nodules, spleen, lungs and gastro-intestinal tract. The skull was opened and the brain removed with the pituitary

Fig. 1. Metastatic leiomyosarcoma in left occipital lobe. Well demarcated but not encapsulated. Necrotic in center with peripheral hemorrhagic areas.

gland along with the upper portion of the cervical spinal cord. The skull, dura and venous channels showed nothing unusual.

Examination of the brain after it had been placed in hardening solution showed a mild flattening of the convolutions of the left cerebral hemisphere. No masses were seen externally and as far as could be determined there were no areas of local softening. On section there was some displacement of the corpus callosum to the left and the centrum semi-ovale seemed somewhat increased in size on the left as compared to the right. There was thought to be some softening of the white matter in the left parietal region as compared with the right side. In the left occipital lobe was seen an ovoid tumor mass which measured from two to two and one-half centimeters in diameter. (Fig. 1). The posterior limit of this tumor mass was three and one-half centimeters anterior to the left occipital pole, while anteriorly the mass had ruptured into the occipital horn of the left lateral ventricle. This mass was brownish-gray in color, quite soft and somewhat necrotic in the center with some peripheral hemorrhagic areas. It was well demarcated from the surrounding white matter but there was no capsule present. Laterally the tumor tissue came within less than one millimeter of the external surface of the temporo-occipital cortex, but at no point did it make its appearance on the surface of the brain. Medially it involved the superior and posterior aspects of the left temporal lobe, the inferior margin of the cuneus and most of the lingual gyrus in the left occipital lobe. The cerebellum and brain stem did not show any evidence of the presence of tumor. Sections for microscopic study were taken from the tumor mass, Broca's area on the left side, left parietal lobe, midbrain, pons and medulla.

Histo-pathology. — (All sections stained with hematoxylin and eosin.)

Sections from the primary tumor in the uterus: (Fig 2) The tumor is a very histoid and highly anaplastic sarcoma. There are multiple areas of necrosis and myxomatous change. The nuclear structure is highly polymorphous and there are many giant cells of various forms and shapes with varied nuclear content. All stages of transformation from non-striped muscle to undifferentiated sarcoma cells are found in the various fields.

Sections from the lungs: (Fig. 3) In the lungs the tumor presents the appearance of a highly malignant, rapidly infiltrating growth, but the myosarcomatous character of the tumor is well preserved. The pulmonary metastases are not so anaplastic in structure as the nodule in the brain but still show very clearly the myosarcomatous nature of the primary.

Sections from the pancreas, spleen, kidneys, adrenals, intestines, and mesenteric nodules were negative.

Sections from the liver: There is present a low-grade capsular cirrhosis with fibrosis of Glisson's Islands.

Sections from the brain: (Fig 4) The brain metastasis consists of various nodules of highly vascular, large-celled sarcoma of the spindle and polymorphous types. There are large areas of necrosis due to thrombosis of the larger vessels and the blood vessels have in part been replaced by the rapid proliferation of cells. The metastases are highly polymorphous in their cell type and bear very little resemblance to the structure of the primary tumor. The brain metastases are much more anaplastic than those in the lungs, have lost their myomatous features and contain multiple giant cells. Without the examination of the primary and the lung metastases the myosarcomatous nature of the brain secondaries would not be apparent.

Sections from Broca's area, left parietal lobe, midbrain, pons and medulla failed to show the presence of tumor cells. (Dr. Morse.)

Discussion

Several interesting points were brought to mind by the above case. First of all, the rarity of sarcomatous degeneration in a leiomyoma has been cited, even though myomata occur quite frequently. Secondly, no intracranial metastasis of a malignant uterine leiomyoma could be found in the literature. It is well known that pulmonary neoplasms metastasize very frequently to the brain and consequently, whenever a patient presents himself with a history of a rapidly growing brain tumor, the lungs and mediastinum should always be thoroughly examined for any evidence of a primary growth. In the above patient the metastases occurred first in the lungs and then in the brain and it is quite probable that no intracranial metastases would have occurred had the lungs not been first involved. Therefore, it is a good rule to obtain adequate neurological examination in any patient with a malignant neoplasm who shows any mental change whatsoever. Especially should this rule be followed if it is known that the neoplasm is pulmonary, whether primary or metastatic.

Metastatic brain tumors are usually multiple and frequently tumor cells are seen scattered throughout the brain. The examination of the brain in the above case was unique in that only a solitary lesion could be found and that there was no microscopic evidence of tumor cells elsewhere even though the left parietal lobe had felt soft

on gross examination of the cut section. Although the ophthalmologist reported the presence of two brown spots in the right fundus, the fundi, unfortunately, were not

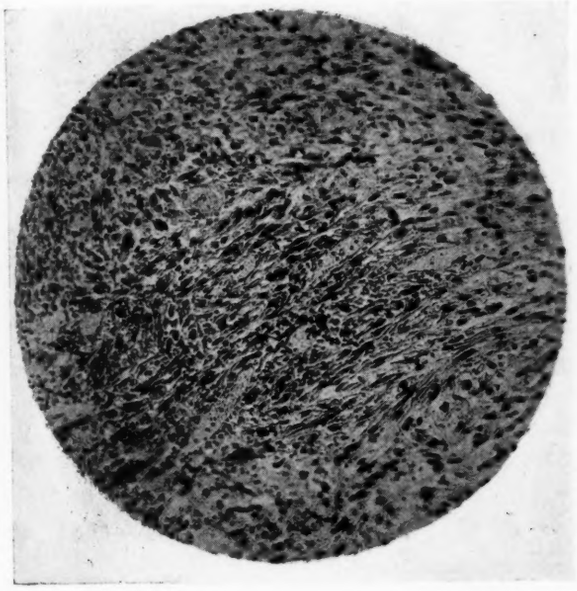

Fig. 2. Section from primary tumor in uterus showing the anaplastic nature of the sarcoma with giant cells and polymorphous nuclear structure.

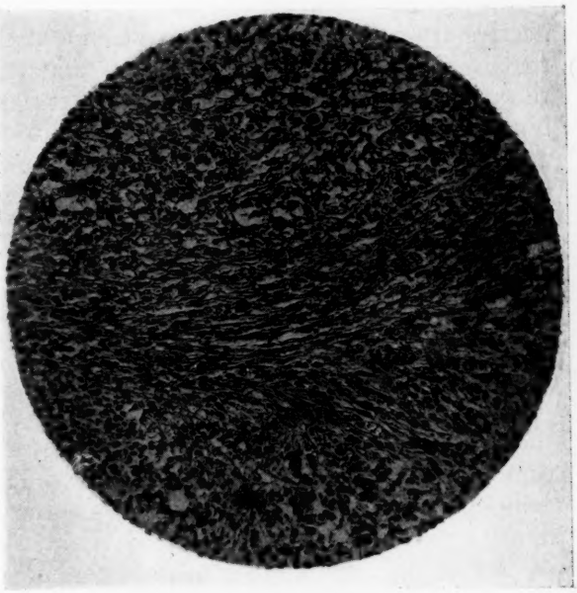

Fig. 3. Section of metastasis in lung showing the myosarcomatous characteristics of the tumor.

included in the autopsy and the significance of these spots must remain unanswered. It is interesting to note that the only other metastatic intracranial leiomyosarcoma, reported by Cohen,[1] was characterized also by a solitary lesion in the left occipital lobe.

There was one interesting symptom which this patient presented and which has been observed by one of us (W.H.G.) for some time, and that is a characteristic tightening in the chest in patients with pulmonary metastases. This has occurred often enough to be considered an early symptom in these patients.

The immediate cause of death in this patient seems fairly evident and was due most likely to the rupture of the tumor into the left lateral ventricle, the actual time of the rupture probably coinciding with the first convulsive seizure. The only positive localizing features prior to the first seizure were the right homonymous hemianopsia and the mixed aphasia and both of these are self-explanatory in view of the pathology.

The pathogenesis of myosarcoma is apparently still debated. Ewing[2] states that some observers believe many myosarcomas arise through malignant change of connective tissue of the leiomyoma while on the other hand others believe that an ordinary type of malignant change in muscle cells

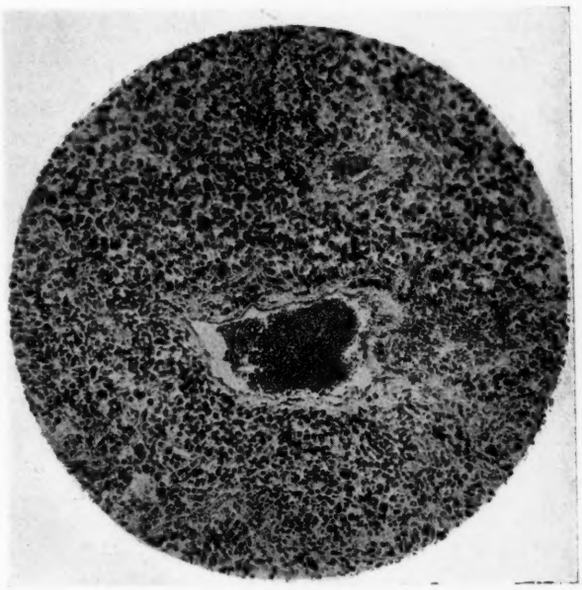

Fig. 4. Section of metastatic tumor tissue in brain. The tumor cells are more anaplastic than those in the lung and have lost their myomatous features. The vascularity and giant cells are also seen.

takes place. Novak and Anderson[7] believe that uterine sarcomas usually have a myogenic origin from undifferentiated muscle cell elements. Nordland and Larson[6] state that myosarcomata are myomata which have undergone sarcomatous metaplasia and that the cell types of a myoma which

are fibroblasts and leioblasts easily undergo malignant metaplasia. Floris[3] suggests that sarcomas in myomas arise from immature elements in the heart of a preëxistent myoma or from a single primary tumor from the same immature muscular and connective tissue elements; i.e., from myoblasts and fibroblasts. He states further that this tumor should not be considered secondary but as sarcoma in myoma, intramyomatous, and that one should not speak of degeneration or transformation or sarcomatous destruction of the myoma.

In our patient the pathologist reported all stages of transformation from non-striped muscle to undifferentiated sarcoma cells. This would lend support to those who believe that a malignant change takes place in the muscle cells themselves. Furthermore, in the process of metastasis the tumor cells became more malignant. The cells in the pulmonary metastases were more anaplastic than those taken from the region of the primary, while in the brain the cells became still more polymorphous, anaplastic and rapidly proliferating, so that they had practically lost their resemblance to the cells in the primary tumor.

Summary

The incidence of malignant change in leiomyoma is rare while intracranial metastasis of a leiomyosarcoma is practically unknown.

A patient with uterine leiomyosarcoma with pulmonary and intracranial metastases is presented. It is probable that the intracranial metastasis occurred by way of the pulmonary metastases rather than directly from the primary tumor.

An interesting early symptom of pulmonary neoplastic metastasis is suggested, consisting of a peculiar tightening in the chest as if the chest walls were being pulled together.

The finding of all stages of transformation from non-striped muscle to undifferentiated sarcoma cells in the primary tumor supports the belief that when myomata becomes sarcomatous the malignant change takes place in the muscle cells and not in connective tissue cells.

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HEMORRHOIDECTOMY UNDER REGIONAL ANESTHESIA*

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The surgical removal of internal and external hemorrhoids under some form of non-sleeping anesthesia is now an accepted form of practice. The average patient demands surgery under such anesthesia almost as a routine. It is no longer necessary to stress the advantages of local, caudal or spinal anesthesia for surgery of the ano-rectal region. The safety, convenience and peculiar adaptability of these forms of anesthesia for the surgical treatment of ano-rectal diseases is today an accepted fact. No longer is it necessary for the proctologist or the surgeon to struggle with a patient not thoroughly anesthetized on account of the timidity of the anesthetist, or to be in a constant state of apprehension on account of the incompetence of this individual. The complete relaxation obtained through the employment of local or caudal anesthesia, particularly when administered by one of skilled experience, provides an infinitely better prepared operative field than can be obtained under any form of general anesthesia. This last statement might be modified only if infiltration is used to supplement general anesthesia in producing local relaxation impossible otherwise.

The technic presented for hemorrhoidectomy under regional anesthesia has been employed by us and many other proctolo-

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gists with slight modification for over thirty-five years. The employment of regional anesthesia for all operations in the ano-rectal region below the recto-sigmoid, obviates the necessity of divulsion either manual or by the use of the vivalve speculum. The relaxation of the muscles of this region is complete and is accomplished without the trauma, caused in most of the patients when manual or instrumental divulsion is performed under general anesthesia.

While many anesthetic drugs are used for the production of local anesthesia, novocaine still stands at the head of the list. It, however, is supplemented by other anesthetic agents when one wishes to secure prolonged postoperative anesthesia.

For preliminary anesthesia—a ½ to 1 per cent solution in Ringers' solution is employed. A No. 20 c.c. glass syringe fitted with a flexible rustless steel needle 1.5 to 3 inches long, and of 20-24 gauge is employed. The sharper the point of the needle the more painless the puncture. For the preliminary sphincter block the 1 per cent solution is employed. A point ½ inch posterior to the posterior commissure of the anus is selected. A quick thrust at right angles to the skin surface is made instead of in the oblique direction. This makes the puncture painless, and immediately after puncturing, considerable pressure is made on the syringe piston. The needle is then directed in a V-shaped direction, first on one side, and then on the other, until the circum-anal integument is slightly distended. This injection is subcutaneous and never intradermal.

Injections into the skin itself account for those occasional cases of slough which are reported by some operators. Most cases of slough, however, are produced when epinephrin is added to the solution. This drug is never used in personal practice. After skin anesthesia, the needle is inserted behind the sphincter and in the post-ano-rectal space on either side for a distance of 1.5 inches. From 5 to 10 c.c. of the solution are used. If the operation is not to be prolonged, the 0.5 per cent solution is strong enough for the subcutaneous injection. In two or three minutes complete relaxation of the anal sphincter occurs. An added injection under each hemorrhoid is advantageous. This should extend up to, and beyond the juncture of the pedicle of the normal mucosa. All external hemorrhoidal tags or hypertrophied folds should be distended with the 0.5 per cent solution.

This type of anesthesia in the hands of a skilled operator will suffice for all external hemorrhoids and for the majority of cases of internal as well.

Caudal Anesthesia

This is applicable for all cases where infiltration anesthesia is employed, but can be used also for some fistulas and abscesses, and for prolapse; in fact for any pathology lying below the recto-sigmoid. It has the advantage over infiltration anesthesia in, that one puncture is sufficient for complete anesthesia and relaxation in over 90 per cent of the patients. In the occasional case where caudal anesthesia is not completely effective it can be supplemented by infiltration.

Its technic is not difficult. The patient is placed on the operating table in the same position and prepared the same as for infiltration anesthesia. Palpation from the sacro-coccygeal juncture upward will disclose two bony prominences—the sacral cornua—on either side of the median line; the finger tip drops into a triangular depression between these. Only in the extreme obese patients is this triangle difficult to locate. From 20-40 c.c. of a 2 per cent novocaine in Ringers' solution is required for the production of caudal anesthesia. The skin is punctured in the center of this triangle, and injection is immediately begun. The needle is pressed through the tissues until one meets the resistance of the membrane covering the sacral hiatus.

When this is punctured the needle immediately enters a free cavity and is advanced to the hilt. Before injecting into the caudal canal, it is well to aspirate in order to be assured that one has not punctured a vein. The appearance of blood on aspiration would indicate this, and the position of the needle must immediately be changed until aspiration does not produce blood.

The injection then proceeds until piston pressure indicates that the canal is filled to distention. If after injecting a maximum of 45 c.c. the canal does not seem to be distended, enough sterile water can be injected to produce definite pressure. Failure to enter the canal accounts for inability to produce caudal anesthesia in many instances.

If, on injection, a wheal is produced where the injection has been made, the canal has not been entered. It is sometimes difficult even by skilled operators to enter the canal in the extremely obese. If the patient complains of a cramping sensation of the dependent leg, usually the left, one may be sure that good anesthesia will follow. It requires from 7½ to twelve minutes to produce complete relaxation and anesthesia. Exceptionally, twenty minutes, may be necessary. Skin anesthesia usually follows in three to five minutes after relaxation of the sphincter muscles is complete.

Operative Technic

The circumanal skin at, or just inside of its merge with mucous membrane is grasped with triangular forceps and traction made at "twelve, three, six and nine o'clock." This traction is maintained by weights attached to the anterior and left lateral forcep, and a weight and chain to the right lateral forcep. The posterior one is maintained in position by attaching it to the canvas cover with a clip or Allis forcep. While in a great majority of cases there are three principal hemorrhoidal masses located respectively in the right anterior, right posterior and left lateral areas, one or more secondary hemorrhoids may also be present. Each hemorrhoid is grasped in turn with the hemorrhoidal forcep, and a blunt pointed ligature carrier threaded with number two chromic catgut is inserted just above the juncture of the hemorrhoid with normal mucosa deep enough to encircle its blood vessels. The ligature is firmly tied and the same procedure carried out with the other hemorrhoidal tumors. These ligatures, which are mostly submucous, while the knots are tied on the mucous surface, render the operation almost bloodless. The principle of tying before cutting is employed.

Starting with the most dependent hemorrhoid, it is grasped in the same manner as when the ligature was placed. Cutting from within, outward, in order to avoid undercutting the ligature, an ellipse of mucous membrane comprising not over three-quarters of the presenting hemorrhoid is excised. It is quite proper after making the first cut from within outward to complete the excision in the opposite direction. The edges of the mucosal wound are lifted up with thumb forceps and all varicose veins destroyed underneath the membrane and removed by severing them. Each hemorrhoid is treated in turn in like manner. The sphincter or its sheath should be exposed in each wound; this prevents injury to this important muscle, and also insures the removal of all of the varicose veins which compose the hemorrhoid. It is well to examine for bleeding points and ligate any spurting vessels. If the original ligatures have been properly placed there will be very little of this. The triangular forceps and weights are now removed. The hypertrophied external skin folds and any cutaneous tags are then excised. This is accomplished by grasping the hypertrophied fold at its outer extremity with thumb forceps and excising it and raising it up from without inward, radial to the anal aperture. These external wounds usually join with the internal in the corresponding locations. Any spurting vessels are ligated with plain catgut the same as in the removal of the internal hemorrhoids. Each wound must be tapered at its outer extremity and no folds, jagged edges or cups allowed to remain. A tapered wound assures perfect drainage and rapid healing.

In order to secure good postoperative anesthesia, about ten c.c. of a 0.5 per cent solution of either puinine urea chloride, or diothane hydrochloride is injected underneath the skin completely surrounding the anus. This injection is made under, and not into, the integument. One or two c.c. should be injected into each postero-lateral quadrant to anesthetize the sphincter. A strip of soft rubber tissue covered with some analgesic ointment is inserted. The formula of the one used in our practice is as follows:

℞ Benzocaine ..... 4 gms.
Chloretone ..... 4 gms.
Thymol Iodide ..... 4 gms.
Emollientine (P.D.) to make.....120 gms.
Dispense in nozzled tube.

A pressure dressing is applied, the pads being held in place by two adhesive strips, and a wide T-binder is applied. The postoperative anesthesia produced will last usually from one to five days, and the patient's period of hospitalization runs from four to seven days.

PERNICIOUS ANEMIA

Its Prevalence and Adequate Treatment
A Review of Two Hundred and Twenty-Three Cases

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Since the advent of liver in the treatment of pernicious anemia in 1926, the tendency has been to consider this disease a closed chapter so far as therapy is concerned. However, from the patients seen in our clinic, it is evident that too often the condition is not recognized unless advanced, and even when correctly diagnosed, is poorly treated. Our object in reviewing our series of two hundred and twenty-three cases at the Henry Ford Hospital is to stress, or reëmphasize, some of the fundamental facts about the disease so often overlooked:

First, in spite of known specific therapy, which has materially decreased the mortality, pernicious anemia prevails in only moderately decreased numbers.

Second, only when treatment is adequate and continuous can it be considered successful.

Third, the presence of infection complicates the treatment.

Fourth, central nervous system changes increase therapeutic requirements, but if not already present, can be prevented.

We need not dwell upon a description of the disease in its entirety, including, for example, etiology, diagnosis and prognosis. The development of our knowledge concerning these topics, which Sturgis[5] rightfully calls one of the most brilliant chapters in the history of medicine, has resulted from the tireless efforts of earlier workers, particularly Whipple, Minot, Murphy and Castle. Their pioneering work has made the control of the disease relatively easy if only what they teach be properly applied.

Incidence of Cases: Age; Sex

From January, 1926, to January, 1938, we have record of two hundred and twenty-three cases with a definite diagnosis of pernicious anemia. This is an average of two and two-tenths in every thousand new cases registered during that period, as compared to three to four out of one thousand cases mentioned by Sturgis[6] in earlier records. Of these eighty-six per cent had neurological symptoms or findings, ranging from simple numbness and tingling of the extremities to marked ataxia.

There were one hundred and twelve females and one hundred and eleven males. This corresponds with more recent reports of larger series. Sturgis,[6] without giving actual figures, says the two sexes are affected with equal frequency. Goldhamer[2] reported five hundred and eighty cases and commented that the disease occurred in man or woman with equal frequency. Even as early as 1929, Riddle,[4] in his manual for patients with pernicious anemia, says the disease is equally common in men and women. Yet, older publications and textbooks tell us that the disease is more common in the male. Thursfield[7] says males predominate two to one. Cabot[1] states that of eleven hundred and fifty-seven cases available, seven hundred and twenty-four were males, four hundred and thirty-three females; again almost two to one.

The age range in our series was seventeen to eighty-one years. Although most of the cases were forty years or over, we have discovered an increasing number in the early thirties, or even younger. To illustrate, of the one hundred and eighteen cases seen between 1926 and 1931, twelve, or ten per cent, were under forty years of age, three were under thirty, the youngest twenty-nine; and of the one hundred and five cases between 1931 and 1938, seventeen, or eighteen per cent, were under forty years, ten were under thirty-five, five under thirty, and the youngest seventeen.

TABLE I.

Year	Total Cases Pernicious Anemia	Total Cases Known Dead	Total Cases Known Living
1926	31	9	6
1927	22	7	6
1928	23	6	6
1929	15	2	3
1930	27	1	13
1931	21	4	9
1932	12	1	6
1933	9	2	5
1934	9	2	6
1935	13	1	8
1936	25	1	21
1937	16	0	16

Table I is a record of the total number of cases of pernicious anemia, the number

known to be dead, and the number still living for each year of the period under consideration. The total cases are about in proportion to the total new cases registered at the hospital, excepting for the four-year period from 1926 to 1930. During this time pernicious anemia cases decreased in spite of an actual increase in total registration. This may possibly be explained on the basis of the advent of liver in the treatment. As so often happens with a new method or preparation, the populace as a whole began emphasizing liver in the diet. Hence, there may have been a delay in the development of the usual signs and symptoms of pernicious anemia until the wave of enthusiasm had passed.

Mortality

Of our total series of two hundred and twenty-three cases, eighty-two were treated elsewhere so that of these we have no complete record, either of treatment or its results. It would doubtless be safe to assume that many of the older patients of this group are dead. However, we have only recorded total cases diagnosed, as given in Table I, and then made a thorough study of the cases actually known about, living or dead.

It will be noted that the general trend has been to less deaths in proportion to total cases as the years have progressed and specific therapy has been perfected. This is made more than apparent when the cases are analyzed more in detail. For example, of the nine known dead for 1926, seven died of pernicious anemia. Of the seven deaths in 1927, four resulted from the disease itself. Since that time only one patient has died directly from pernicious anemia, late in 1936. This was one of the severe cases still seen occasionally, with anemia so marked that there was mental confusion and symptomatic myocardial insufficiency.

On admission to the hospital this patient, a woman of fifty-eight years, had a red blood cell count of 830,000 per cubic millimeter and a hemoglobin reading of eighteen per cent. Death occurred five hours after admission. Permission for autopsy was refused so that we have no knowledge of some possible terminal complication, such as intracranial hemorrhage.

Of the thirty-six known to be dead, pernicious anemia was the primary cause of death in twelve, or thirty-three and one-third per cent. As in Sturgis' cases,[5] these included patients who already had advanced central nervous system changes, or failed to get proper therapy. The others died of various conditions commonly causing death at these ages: broncho-pneumonia, seven cases; hypertensive cardiovascular renal disease, four; chronic myocarditis, three; carcinoma of the stomach, three; coronary occlusion, two; chronic nephritis, two; fracture of femur with terminal broncho-pneumonia, erysipelas, and adenocarcinoma of the ovary with metastases, of each, one.

Adequate Therapy: Its Meaning

This brings us to some comment regarding the status and mode of therapy of those still living. We have record of one hundred and five cases, forty-seven per cent of the total series. It is interesting that three of the younger patients, one twenty-seven, one thirty-six, and one thirty-seven years of age, came for relief from difficulty in walking and marked paresthesias, having no knowledge that anemia was, or ever had been, present. The neurological symptoms and findings were typically those of subacute combined sclerosis of the spinal cord; namely, numbness and tingling of the hands and feet, spasticity of the muscles of the lower extremities, loss of vibratory sense, and ataxia. Response to liver therapy was very gratifying. Also, two of these have gone through the common experience of a relapse due to inadequate therapy. Then the blood was typical for pernicious anemia, with color index well above unity, marked variation in size and shape of red cells, and the presence of many macrocytes.

In the earlier group there are eight patients who still take whole liver by mouth only. One, a woman of sixty-three years, uses one to two pounds a week and continues to do very well after more than six years of this treatment. The others use one-half to one pound of liver daily. One man takes practically all of it raw. Most of the remaining ninety-seven also take small amounts of liver by mouth. However, most of these have become so tired of taking it through the years until potent extracts were available, that they now depend almost entirely upon extracts, either by

mouth, parenterally, or a combination of these two methods. In the last three years we have had only two patients who objected to liver extract injections. When cost was considered, even these two withdrew their objection. We have used almost exclusively one preparation in which one cubic centimeter of the extract represents one hundred grams of whole liver, or fifteen U.S.P. units according to the new standard of measurement.

The usual procedure is to give an intramuscular injection of four cubic centimeters of the extract the first day, three cubic centimeters the second, two cubic centimeters the third, and one cubic centimeter daily thereafter for one week, observing the response by daily reticulocyte counts. This is then followed by an injection of one cubic centimeter a week until the blood count is normal; that is, red cells from four and one-half to five million per cubic millimeter of blood, and hemoglobin ninety to 100 per cent. Six to eight weeks is the usual period required for this. Thereafter the average number of one cubic centimeter injections needed to maintain the blood count at a normal level is two a month.

Early in the treatment with intramuscular liver extract, the smaller doses recommended by manufacturers seemed temporarily very satisfactory. But we now feel certain that the more generous doses mentioned above are advisable, in that a better reserve is built up in the body. We also make certain that enough of all the factors needed are given; namely, the one which controls the oral lesions, the hematological factor, and a third which helps the paresthesias.

Infection and Adequate Treatment

This average procedure needs to be varied, of course, depending upon the status of the case when first seen. Fewer injections are used if the blood count is not low, more if it is very poor or complications are present. Among the latter we wish to particularly include infection. It has been our experience that with infection present, more of a potent liver extract is required, both for restoration and for maintenance of a normal blood count. We also learned from two cases that it is inadvisable to attempt radical removal of focal infection, such as abscessed teeth, until the blood count is normal.

One of these, a woman aged forty-seven years, made a very good initial response to liver extract injections, the reticulocyte count reaching 16 per cent on the sixth day of therapy, but the original red blood count of two million per cubic millimeter and hemoglobin reading of 48 per cent had not changed when extraction of badly infected teeth was started. She did very poorly thereafter, losing her appetite entirely and becoming very weak. In spite of intensive treatment, she expired of bronchopneumonia.

The other patient, a man aged forty-nine, also did very well on liver therapy, but apparently extraction of infected teeth was carried out too soon, with the result that, in spite of continued intensive liver treatment, the red blood count and hemoglobin remained stationary at 75 to 80 per cent for a full month after extractions were completed.

Neurological Complications and Adequate Therapy

Also in cases with neurological changes do we insist on enough medication. We have three patients who have not been faithful about treatments at all, and yet have developed no serious neurological complications. But most cases not properly treated do show evidence of increased spinal cord changes, so that more than just enough treatment is preferable. We have every reason to feel, as does Needles,[3] that by giving enough specific treatment to keep the blood count normal all the time, cord changes can usually be prevented in those patients who have not yet developed complications. In fact, we have several patients whose symptoms due to central nervous system damage actually lessened or disappeared. One striking example is a man of fifty-six years who was wholly unable to walk when admitted to the hospital. Now, eighteen months later, he is working a part of the time at his old occupation of bricklaying. Our feeling is that the presence of spinal cord changes is a definite indication for more intensive liver therapy, regardless of good progress.

In any case, one needs to be guided entirely by response to treatment. The secret of success lies in giving enough of a potent substance to produce and maintain a normal blood count all the time. When feeling well again it is very difficult to convince

even intelligent patients of the need for continuing treatment. Only when another relapse occurs do they appreciate that their illness is one for which constant specific treatment is as important as a regular daily intake of an adequate diet; that only in this way can damage to the spinal cord be avoided.

Naturally, other measures of therapy are also helpful, especially in cases such as the bricklayer mentioned above. At least a portion of his improvement must be attributed to physiotherapy in the form of massage and corrective exercises.

In these cases, too, we feel that foods rich in vitamin B should be emphasized. Often some potent form of this vitamin is given by mouth, at least off and on. Special diets otherwise are practically never necessary. Although it is not uncommon to find anorexia during a relapse, soon after starting liver extract injections a good appetite returns. Only if a deficiency of some kind is present is more than an ordinary diet needed.

The patient that died soon after admission failed to have a fractional gastric analysis. All others had complete absence of free hydrochloric acid. However, we do not consider achlorhydria sufficient reason for giving acid. The fact is, few of our cases have needed it as an accessory to specific therapy.

A common experience with patients on liver therapy is that the hemoglobin reading of the blood lags behind the red blood cell count. Then we invariably add iron therapy until a satisfactory level of hemoglobin is reached and maintained.

Finally, a word should be said about blood transfusion. Since potent liver extracts have been available for intramuscular injection, we have given a transfusion for pernicious anemia only once. In this case red blood count and hemoglobin were so low that the slightest change from a prone to a sitting position would result in syncope from cerebral anoxemia. There was marked mental disturbance and, to prevent further more serious damage, one transfusion of five hundred cubic centimeters of citrated blood was given with good results. Yet, another case with anemia equally severe and the same mental symptoms, did equally well on intensive liver therapy alone. We need to keep in mind that blood transfusion still has a place in the treatment of the rare severe case of pernicious anemia when it reaches the stage producing cerebral anoxemia. But with potent liver extracts for parenteral use now available, this one time only method of therapy is rarely necessary.

Conclusions

1. The number of cases of pernicious anemia in proportion to the total cases registered at the Henry Ford Hospital between 1926 and 1938 is only slightly below the proportion recorded in larger series previous to that period.

2. Pernicious anemia need not be a fatal disease, provided adequate specific therapy is given. This means keeping the blood count normal all the time; namely, hemoglobin reading of 90 per cent or over and red cell count between four and one-half and five million per cubic millimeter.

3. Of the thirty-six patients known to be dead, twelve, or one-third, died of the disease itself, and practically all of these before the advent of parenteral liver therapy. The remaining two-thirds died of diseases common to people at this age.

4. Parenteral liver therapy is the most satisfactory method because it assures absorption of the liver fraction needed. With this method available, transfusion is rarely necessary.

5. Adequate liver therapy will prevent the development or progress of spinal cord changes. However, central nervous system complications are an indication for more intensive treatment.

6. The presence of focal infection increases the requirement of the specific substance. At the same time, it is unwise to remove such infection until a complete remission is reached.

7. Supplementary measures of therapy, such as iron, dilute hydrochloric acid, or vitamin medication, physiotherapy and blood transfusion, have a definite place in certain cases and at the proper time.

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RECENT ADVANCES IN BLOOD TRANSFUSION*

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Many vital issues have been raised in recent years by the almost unbelievable expansion of the use of transfusion. That a great many more transfusions than are actually needed are being given today is undebatable. However, that the administration of blood in appropriate doses to properly selected cases can be of great assistance is also undeniable. Only in another decade or two will many of the relatively recent additions to our armamentarium find more nearly their proper place; but as to blood transfusion, at least, it may definitely be said that by the observance of a relatively few essential precautions it certainly has become an entirely simple and safe procedure, and is a real adjunct to treatment.

At Harper Hospital last year a total of 1,484 transfusions were performed, which almost doubled the number done in 1937, and there was not a single fatality attributable to the transfusion itself. This is quite a contrast to the record of a few years ago, when severe reactions averaged 10 to 20 per cent, and fatalities up to 1 or 2 per cent. By the use of a simplified procedure,[1] it is also noteworthy that of the 1,484 transfusions done at Harper, the majority of them were performed by internes and residents without any assistance from the attending staff whatsoever, which speaks eloquently for the relative simplicity of blood transfusion today.

The true indications for transfusion have not been greatly extended in recent years, but we are now more alert in giving blood and plenty of it at the earliest indication that blood is needed. It is also not new to state that blood may be profitably given to replace blood-loss due to any cause and with or without surgical shock, but it is only relatively recently that it has been given in such quantities as to restore the hemoglobin to 100 per cent in the short space of two or three days. The method of mass transfusion, in which 2,000 to 3,000 c.c. of blood is given by continuous drip over a period of 36 to 48 hours, has been used a good deal in England[2] but is not favored in this country. Here we prefer giving 300 or 400 c.c. every few hours until the blood-loss is restored to a high level in these extreme cases. In patients who have lost blood from a bleeding peptic ulcer or other internal viscera, it has formerly been held that transfusion would tend to produce further hemorrhage. By the use of small frequently repeated transfusions given at a very slow rate, such patients are now receiving blood with both profit and safety.

In the field of the anemias, due to blood dyscrasia, the use of blood transfusion has in fact narrowed rather than extended. Until 1926 there were more transfusions given for pernicious anemia than were given for any other cause; but since the advent of liver therapy, this group makes up the smallest number of transfusions. In fact, except for the occasional case of pernicious anemia whose situation is so desperate that one cannot wait even a few days for the blood maturation which parental liver extract will initiate, a blood transfusion is not at all indicated.

As to such secondary anemias as chlorosis, the hypochromic anemia of the menopause or of pregnancy, or the anemias following chronic infection, it is relatively uncommon that the use of proper anti-anemic substances will not prove entirely adequate. In the acute hemolytic anemia which sometimes follows the use of sulphanilamide, blood transfusion seems to have a very immediate effect and should be used vigorously until the blood level is completely satisfac-

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tory. In aplastic anemia there is at first an immediate benefit, and it may be possible to render such patients quite comfortable for a few months by repeated transfusions. An occasional case is reported in which the bone marrow finally resumes its activity after a few months of transfusion[3] but usually there comes a time when transfusion is no longer of any value. It is my belief that a similar situation exists in regard to the leukemias. Occasionally the physician is forced to give repeated transfusions in the chronic leukemias. And while there is undoubtedly a temporary pick-up in the early months of the disease, it is never in any sense curative; and in the latter months of the illness, transfusion gives little benefit.

In hemorrhagic diseases and patients with severe jaundice and bleeding, blood transfusion may not only be an effective temporary expedient but as a pre-operative aid may be life-saving as well. I have had several opportunities to compare the usefulness of the citrate or indirect blood transfusion method, as contrasted to the whole blood or direct method, in the treatment of bleeding cases of purpura hemorrhagica and aplastic anemia, and have found no essential difference. In other words, in these cases of bleeding, due to thrombocytopenia, fresh citrated blood is fully as effective as whole blood in controlling the hemorrhages.

In granulocytopenia, blood transfusions, it has been claimed, are of great value. I am sorry to say I have not seen unmistakable evidence that this is so. Theoretically, it may be considered sound, and, as an adjunct to treatment, is well justified. However, I cannot endorse relying on transfusions as a major part of the treatment. In such cases they should be used as purely a supportive measure.

There is, perhaps, no more controversial subject concerning blood transfusion than its use in acute infection. Only two or three years ago I had several experiences in which blood transfusion was being urged by reputable physicians in desperate cases of pneumonia only because the cases were desperate, and not because there was either anemia or severe leukopenia. Of course, now the view has shifted, so that more sulphanilamide or serum are the recourse in desperation. In other words, blood transfusion can be of unmistakable value in desperate cases of infection when there is either definite anemia or decided leukopenia; but its use cannot be justified in every case of serious infection unless there are definite blood changes.

The use of immuno-transfusion is somewhat different, for in this case one is giving blood because of its high content of immune substances and not because of the blood elements themselves. Of course, immuno-transfusion has a decidedly limited field; but occasionally, as in the common childhood diseases where convalescent serum is not available, or in infections due to a known bacterial strain where a suitable immune donor happens to be at hand, it can offer spectacular help. I have had three such experiences. One was the case of a hemolytic streptococcus infection of the hand, and two were severe cases of brucellosis[4] who had resisted all other forms of therapy. In the latter case, one was dramatic beyond belief.

Of recent years much attention has been given to the total serum protein values in the blood, and more especially to the serum albumin value which is a direct reflection of the osmotic pressure of the blood plasma. When the total serum protein falls below 5.5 gm. per 100 c.c. of blood, or the serum albumin below 2.5 gm. per 100 c.c. of blood, the critical level has been reached. Below this point the osmotic pressure of the blood plasma is so low that water passes from the blood vessels into the tissue spaces, and we have edema. In nephrotic edema of severe degree, it often becomes necessary to raise the serum protein values or the osmotic pressure before the edema can be relieved. If there is anemia especially, it becomes most logical to administer blood to such patients, after which the edema may entirely subside. Recently 6 per cent acacia solutions[5] have been used to raise osmotic pressure in such cases, and in some instances it does seem to have both a relatively lasting effect and to be fully as harmless as is blood transfusion.

The contra-indications to blood transfusion have altered appreciably during the past few years. I am sure we can all recollect instances in which transfusion was withheld for psychologic reasons in anxious patients, or for fear of a transfusion reaction which might be too great a strain in an already precarious situation. As to the former, it may now be answered that, by

the newer indirect methods, transfusions are frequently given without the patient's knowledge. While the possibility of a blood transfusion reaction must still be considered in gravely ill patients, nevertheless by administering small amounts at a time, of a carefully checked blood, such a consideration is rarely a serious factor today. Where there is pulmonary edema, any intravenous injection may further engorge the right side of the heart and may even prove fatal; so in such patients blood transfusion must, if given, be administered at an extremely slow rate. Likewise in serious myocardial degeneration, the giving of blood must be carefully considered. I have seen two such cases develop acute pulmonary edema while intravenous glucose was being administered at too fast a rate, and one of these cases proved fatal. It has been said that blood transfusion should not be used in cases of nephritis. This statement needs considerable modification. Certainly in the early days of acute hemorrhagic nephritis, blood is of very real assistance. As stated above, in any kind of nephrotic edema, even that of chronic Bright's disease, blood may sometimes be given to raise the serum protein levels with value. However, always caution must be used in transfusing cases of nephritis, for if a severe reaction should occur, with further damage to the renal tubules, a grave condition may result. Occasionally the blood of a patient with a severe infection, or patients with blood dyscrasia, will agglutinate the blood of all donors tested. This is probably due to the development of isoagglutinins, which render all donor bloods incompatible. In animal experiments,[6] incompatible bloods can be given safely to dogs when the urine has been previously alkalinized. After administering sodium bicarbonate to a case of acute Hodgkin's disease, whose blood agglutinated all donors to a slight degree, I gave two transfusions without a reaction. However, this is a decidedly risky procedure and I do not advise it. I know of a fatal case of agranulocytosis, who similarly agglutinated all donor blood, and when transfused from one of them had a very severe reaction. At autopsy there was a very considerable hematin deposit in the renal tubules in spite of the alkali, and in spite of the fact that the same donor had given blood to this patient three years before with no reaction at all.

Reactions following transfusion cannot always be avoided, although now much is known concerning their cause. It hardly needs mentioning that improperly treated apparatus can be a cause, for most hospitals have learned that lesson from giving intravenous glucose. The most common cause of blood transfusion reaction, therefore, arises from the fact that not always can minor incompatibilities between two bloods be detected. This error can be lessened if test sera of high agglutinating titer only are used. It is not enough to use as a test serum the serum from just any person of Type A (II) or Type B (III) for such sera vary greatly in potency, and one with a strong titer must be chosen. Likewise, to avoid reactions, the donor's blood must always be cross-agglutinated with the recipient's blood. In few hospitals today is it deemed safe to ever give blood without cross-agglutination tests, or to rely on the Type O (IV) universal donors, except in extreme emergencies. Occasionally iso-agglutinins are present in blood and are not revealed by the routine testing, and thus lead to a reaction. If potent test sera are used and a careful cross-matching is done, these reactions, if they do occur, are not usually severe. However, methods are being sought to detect these iso-agglutinins, but as yet no practical one has been found. Another cause of reaction is present when blood is taken from the donor only a short time after he has eaten. Not completely altered substances may be present in the blood, such as partially split fats or amino acids, and these substances may be a cause of reaction. Also, the recipient may be allergic to some substance which the donor has recently eaten, and in such an event the recipient may develop hives or some other manifestation of allergy. The best safeguard against reactions is, I believe, the giving of the first 50 c.c. of blood at an extremely slow rate so that at the first sign of trouble the transfusion may be discontinued. It has been well shown that the larger the amount of blood given, the greater will be the reaction;[7] so that by administering small amounts at a time, serious damage can nearly always be prevented.

In some areas there is considerable controversy still going on concerning the use of citrated blood as against whole blood. About five years ago I gave up direct-blood

transfusions entirely, and it is my belief that citrated blood will accomplish absolutely everything that whole blood will do. The indirect method is, furthermore, much more fool-proof, is more economical, requires practically no assistance, and is much less disturbing to the patient. Last year I sent out a questionnaire to 54 leading hospitals of the United States, Canada, and Great Britain. Of this group 60 per cent are using the citrate method exclusively, and 88 per cent more than 75 per cent of the time. Of those who are using the citrate method entirely now, are such hospitals as the Billings in Chicago, Stanford University Hospital, the Mayo Clinic, the Lahey Clinic, the London Hospital and Guy's Hospital of London, England, and the Royal Victoria Hospital in Montreal. As time goes on, it seems to me the direct method of blood transfusion may completely disappear.

Much has been written during the past two years on the use of stored blood and the establishment of so-called blood banks.[8] There is no doubt but that in certain institutions the storage of blood can serve a very useful purpose. Such a method has many obvious advantages and, when carefully managed, has proven entirely safe. Such blood can be stored up to several weeks although most institutions using the blood bank are now discarding the blood after ten to fourteen days in storage. By the use of stored blood, no transfusion is ever done using blood without a Kahn test. Numerous examples are known of the transfer of syphilis through transfusion,[9] and I have seen one case myself which was eventually fatal because of the lues. I was able in one day recently at Detroit to find three cases who had been transfused with blood on which no Kahn test had been done, and if for no other reason than this, the blood bank, I believe, justifies itself. Also, stored blood tends to give fewer reactions than fresh blood, undoubtedly due in part to the fact that certain products of digestion go on to complete cleavage even while the blood is stored in the ice box. However, there is one drawback to the use of stored blood more than one day old, and that is that it loses much of its ability to facilitate clotting in only two or three days, and hence is not altogether suitable for use in bleeding cases. Also, while fresh blood—properly taken and mixed in citrate solution—does not need to be filtered at all, stored blood must always be filtered if kept more than a few days as a certain amount of cellular débris is present. For convenience of manipulation, and availability for immediate use night or day, the principle of blood banking is an excellent one and will undoubtedly be extended in the future.

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Kessler, Mana .....Bay City
Kessler, S. .....Bay City
Kowals, F. V.....Bay City
Leininger, J. W.....Gladwin
Lerner, David .....Au Gres
McEwan, J. H.....Bay City
Medvesky, M. J.....Bay City
Merritt, C. E.....Bay City
Miller, Edwin C.....Bay City
Mitton, O. W.....East Tawas
Moore, George W.....Bay City
Moore, Neal R.....Bay City
Mosier, D. J.....Bay City
Perkins, Roy C.....Bay City
Pearson, Stanley M.....Bay City
Reutter, C. W.....Bay City
Riley, R. B.....Bay City
Scrafford, Royston Earl.....Bay City
Shafer, H. C.....Bay City
Sherman, R. N.....Bay City
Slattery, M. R.....Bay City
Speckhard, A. O.....Bay City
Stinson, W. S.....Bay City
Stuart, Kenneth .....Bay City
Swantek, Chas. M.....Bay City
Tarter, Clyde S.....Bay City
Thiehoff, E. V.....Gladwin
Tupper, Virgil L.....Bay City
Urmston, P. R.....Bay City
Warren, E. C.....Bay City
Weed, John .....East Tawas
Wilcox, J. W.....Bay City
Wilson, Thomas G.....Bay City
Wittwer, E. A.....Bay City
Woodburne, H. L.....Bay City
Ziliak, A. L.....Bay City

Berrien County

Allen, J. U.....Benton Harbor
Allen, Robert C.....St. Joseph
Anderson, Bertha.....St. Joseph
Bartlett, W. M.....Benton Harbor
Bliesmer, A. F.....St. Joseph
Brown, F. W.....Watervliet
Cawthorne, H. J.....Benton Harbor
Colef, Irving .....Benton Harbor
Conybeare, R. C.....Benton Harbor
Corey, A. W.....New Troy
Crowell, Richard.....St. Joseph
Dunnington, R. N.....Benton Harbor
Eidson, Hazel.....Berrien Springs
Ellet, W. C.....Benton Harbor
Emery, Clayton.....St. Joseph
Fredrickson, H. C.....Buchanan
Friedman, Morris.....New Buffalo
Gillette, Clarence H.....Niles
Hanna, P. G.....St. Joseph
Harper, Ina.....Benton Harbor
Harrison, L. L.....Niles
Helkie, Wm. L.....Three Oaks
Henderson, Fred.....Niles
Henderson, Robert.....Niles
Hershey, Noel J.....Niles
Higbee, Frank O.....Three Oaks
Herring, Nathaniel A.....Niles
Ingleright, Leon R.....Niles
King, Frank, Jr.....Benton Harbor
Kling, H. C.....Niles
Kok, Harry.....Benton Harbor
McDermott, J. J.....St. Joseph
Merritt, Charles W.....St. Joseph
Miller, E. A.....Berrien Springs
Mitchell, Carl A.....Benton Harbor
Moore, T. Scott.....Niles
Ozeran, Chas. J.....Benton Harbor
Reagan, Robt. E.....Benton Harbor
Richmond, D. M.....St. Joseph
Robson, Verna.....Berrien Springs
Rosenberry, A. A.....Benton Harbor
Smith, W. A.....Berrien Springs
Sowers, B. F.....Benton Harbor
Strayer, J. C.....Buchanan
Taber, R. B.....Benton Harbor
Thorup, Don W.....Benton Harbor
Weil, Leonard.....Benton Harbor
Westervelt, H. O.....Benton Harbor
Yeomans, T. G.....St. Joseph

Branch County

Aldrich, Napier S.....Coldwater
Beck, Perry C.....Bronson
Bien, W. J.....Coldwater
Brunson, A. E.....Colon
Chipman, E. M.....Quincy
Culver, Bert W.....Coldwater
Far, S. E.....Quincy
Fraser, R. J.....Bronson
Gist, L. I.....Coldwater
Holbrook, A. G.....Coldwater
Leeder, F. S.....Coldwater
McLain, R. W.....Jackson
Meier, H. J.....Coldwater
Mooi, H. R.....Union City
Olmsted, Kenneth L.....Coldwater
Phillips, F. L.....Bronson
Schneider, H. A.....Coldwater
Schultz, Samuel.....Coldwater
Scovill, H. A.....Union City
Thomas, J. A.....Coldwater
Wade, R. L.....Coldwater
Walton, N. J.....Quincy
Weidner, H. R.....Coldwater

Calhoun County

Allen, Herbert R.....Battle Creek
Amos, Norman H.....Battle Creek
Baribeau, R. H.....Battle Creek
Barnhart, Samuel E.....Battle Creek
Becker, H. F.....Battle Creek
Beuker, Herman.....Marshall
Bonifer, Phillip P.....Battle Creek
Brainard, C. W.....Battle Creek
Byland, N. O.....Battle Creek
Campbell, Alice.....Albion
Campbell, R. J.....Battle Creek
Capron, Manley J.....Battle Creek
Church, Starr K.....Marshall
Chynoweth, W. R.....Battle Creek
Cooper, J. E.....Battle Creek
Curry, Robt. K.....Homer
Derickson, E. C.....Burlington
Dickson, A. R.....Battle Creek
Dodge, Warren M., Jr....Battle Creek
Fahndrich, C. G.....Battle Creek
Finch, D. L.....Augusta
Fraser, R. H.....Battle Creek
Funk, L. D.....Athens
Gething, Joseph W.....Battle Creek
Giddings, A. M.....Battle Creek
Gilfillan, Margery J.....Battle Creek
Godfrey, Willoughby L...Battle Creek
Gordon, J. K. M.....Battle Creek
Gorsline, Clarence S.....Battle Creek
Graubner, F. L.....Marshall
Hafford, Alpheus T.....Albion
Hafford, George C.....Albion
Hansen, E. L.....Battle Creek
Harris, Rowland H.....Battle Creek
Haughey, Wilfrid.....Battle Creek
*Haughey, Wm. H.....Battle Creek
Heald, C. W.....Battle Creek
Henderson, Louis M.....Albion
Henderson, Phillip.....Albion
Herser, Henry A.....Albion
Hills, C. R.....Battle Creek
Holes, Jesse J.....Battle Creek
Holtom, B. G.....Battle Creek
Howard, W. L.....Battle Creek
Hoyt, Aura A.....Battle Creek
Humphrey, Archie E.....Marshall
Humphrey, Arthur A.....Battle Creek
Jesperson, Lydia.....Battle Creek
Jones, T. K.....Marshall
Keagle, Leland R.....Battle Creek
Keeler, K. B.....Albion
Kellogg, Carrie S.....Battle Creek
Kellogg, John H.....Battle Creek
Kingsley, Paul C.....Battle Creek
Kinde, M. R.....Battle Creek
Kolvoord, Theodore.....Battle Creek
LaFrance, Francis.....Battle Creek
Landon, Charles C.....Battle Creek
Lewis, W. B.....Battle Creek
Lowe, H. M.....Battle Creek
Lowe, Kenneth.....Battle Creek
Lowe, Stanley T.....Battle Creek
Lyon, William D.....Albion
MacGregor, Archibald E...Battle Creek
Martin, Walter F.....Battle Creek
McNair, Lawrence.....Albion
Melges, F. J.....Battle Creek
Mercer, C. M.....Battle Creek
Morrison, Donald B.....Tekonsha
Moshier, Bertha.....Battle Creek
Mullenmeister, H. F.....Battle Creek
Mustard, Russell.....Battle Creek
Nelson, Albert W.....Battle Creek
Norton, Richard C.....Battle Creek
Olsen, Alfred B.....Battle Creek
Overholt, B. M.....Battle Creek
Patterson, Adonis.....Battle Creek
Pritchard, J. Stuart.....Battle Creek
Radabaugh, Clara V.....Battle Creek
Riley, Wm. H.....Battle Creek
Robbert, John.....Climax
Robins, Hugh.....Marshall
Rorick, Wilma Weeks....Battle Creek
Rosenfeld, Jos. E.....Battle Creek
Roth, Paul.....Battle Creek
Royer, C. W.....Battle Creek
Royer, W. A.....Battle Creek
Selmon, Bertha L.....Battle Creek
Sharp, A. D.....Albion
Shipp, Leland P.....Battle Creek
Simpson, Robert S.....Battle Creek
Slagle, George W.....Battle Creek
Sleight, James D.....Battle Creek
Sleight, Raymond D.....Battle Creek
Smith, T. C.....Athens
Stadle, Wendell H.....Battle Creek
Stewart, Charles E.....Battle Creek
Stiefel, Richard.....Battle Creek
Tannenholz, Harold S.....Battle Creek
Taylor, Clifford B.....Albion
Thompson, Oliver E.....Battle Creek
Upson, W. O.....Battle Creek
Van Camp, Elijah.....Battle Creek
VanderVoort, W. V.....Battle Creek
Verity, Lloyd E.....Battle Creek
Volmer, Maud J.....Moline, Illinois
Walters, F. R.....Battle Creek
Walters, Royal W.....Battle Creek
Wencke, Carl G.....Battle Creek
Whyte, Bruce.....Battle Creek
Winslow, Rollin C.....Battle Creek
Winslow, Sherwood B....Battle Creek
Zinn, Karl.....Battle Creek

*Deceased April 14, 1939.

Cass County

Adams, U. M.....Marcellus
Clary, R. I.....Dowagiac
Cunningham, E. M.....Cassopolis
Harmon, C. M.....Cassopolis
Hickman, John.....Dowagiac
Jones, John H.....Dowagiac
Kelsey, James H.....Cassopolis
Loupee, George.....Dowagiac
Loupee, S. L.....Dowagiac
Lyman, W. R.....Dowagiac
Myers, Charles M.....Dowagiac
Newsome, Otis.....Cassopolis
Pierce, Kenneth C.....Dowagiac
Zwergel, E. H.....Cassopolis

Chippewa-Mackinac Counties

Bandy, Festus C.....Sault Ste. Marie
Birch, William.....Sault Ste. Marie
Blain, James G.....Sault Ste. Marie
Conrad, George A.....Sault Ste. Marie
Cook, Carl S.....Mackinac Island
Cornell, Eliphalet A...Sault Ste. Marie
Cowan, Donald.....Sault Ste. Marie
Darby, J. F.....St. Ignace
Gilfillan, E. O.....Sault Ste. Marie
Hakala, L. J.....Sault Ste. Marie
Husband, F. H.....Sault Ste. Marie
Littlejohn, David.....Sault Ste. Marie
McBryde, Lyman M...Sault Ste. Marie
Mertaugh, W. F.....Sault Ste. Marie
Moloney, F. J.....Sault Ste. Marie
Montgomery, B. T.....Sault Ste. Marie
Reese, J. A.....DeTour
Rhind, E. S.....Rudyard
Scott, D. F.....Sault Ste. Marie
Vegors, Stanley H....Sault Ste. Marie
Wallen, LeRoy J.....Sault Ste. Marie
Webster, E. H.....Sault Ste. Marie
Willison, C.....Sault Ste. Marie
Yale, I. V.....Sault Ste. Marie

Clinton County

Elliott, Bruce R.....Ovid
Foo, Chas. T.....St. Johns
Frace, Guy H.....St. Johns
Hart, Dean W.....St. Johns
Henthorn, A. C.....St. Johns
Ho, Thomas Y.....St. Johns
Luton, F. E.....St. Johns
MacPherson, D. H.....Fowler
McWilliams, W. B.....Maple Rapids
Russell, Sherwood R.....St. Johns
Sawyer, Walter W.....St. Johns

Delta-Schoolcraft Counties

Bachus, Arthur C.....Powers
Bartley, Geo. C.....Escanaba
Benson, G. W.....Escanaba
Boyce, D. H.....Escanaba
Brenner, Ervin J.....Manistique
Broberg, Gail.....Manistique
Carlton, A. J.....Escanaba
Chenoweth, Nancy R.....Escanaba
Defnet, Harry John.....Escanaba
Diamond, F. J.....Gladstone
Diamond, J. A.....Gladstone
Frenn, Nathan J.....Bark River
Fyvie, James.....Manistique
Groos, Harold Q.....Escanaba
Groos, Louis P.....Escanaba
Hult, Otto S.....Gladstone
Kitchen, A. S.....Escanaba
Lanting, R.....Escanaba
LeMire, Wm. A.....Escanaba
Long, Harry W.....Escanaba
Miller, Albert H.....Gladstone
Mitchell, James D.....Gladstone
Moll, G. W.....Escanaba
Shaw, Geo. A.....Manistique
Tucker, A. R.....Manistique
Walch, J. J.....Escanaba
Witters, Josef E.....Nahma

Dickinson-Iron Counties

Alexander, W. H.....Iron Mountain
Andersen, E. B.....Iron Mountain
Boyce, Geo. H.....Iron Mountain
Browning, James L....Iron Mountain
Camper, T. E.....Stambaugh
Fiedling, Wm.....Norway
Fredrickson, Geron.....Iron Mountain
Haight, Harry H.....Crystal Falls
Hamlin, Lloyd E.....Norway
Hayes R. E.....Sagola
Huron, W. H.....Iron Mountain
Irvine, L. E.....Iron River
Kofmehl, Wm. J.....Stambaugh
Levine, D. A.....Iron River
Libby, Edward M.....Iron River
Menzies, Clifford.....Iron Mountain
Smith, Donald R.....Iron Mountain
Walker, Claude W.....Iron Mountain
White, Robt. E.....Stambaugh

Eaton County

Anderson, K. A.....Charlotte
Bradley, James B.....Eaton Rapids
Brown, B. Philip.....Charlotte
Burdick, Austin F.....Grand Ledge
Burleson, A. H.....Olivet
Engle, Paul .....Olivet
Gibson, T. E.....Lansing
Hargrave, Don V.....Eaton Rapids
Huber, Chas. D.....Charlotte
Imthun, Edgar F.....Grand Ledge
Lawther, John .....Charlotte
Lown, C. A.....Grand Ledge
McLaughlin, C. L. D....Vermontville
Moyer, H. A.....Charlotte
Paine, E. Madison, Jr....Grand Ledge
Paine, E. M.....Grand Ledge
Quick, Phil H.....Olivet
Rickerd, Vinton J.....Charlotte
Sackett, C. S.....Charlotte
Sassaman, F. W.....Charlotte
Sevener, C. J.....Charlotte
Sevener, Lester G.....Charlotte
Stanka, Andrew Geo.....Grand Ledge
Stimson, C. A.....Eaton Rapids
Stucky, George .....Charlotte
Van Ark, Bert.....Eaton Rapids
Wilensky, Thomas .....Eaton Rapids

Genesee County

Anthony, Geo. E.....Flint
Backus, G. R.....Flint
Bahlman, Gordon H.....Flint
Baird, James .....Flint
Bald, Frederick W.....Flint
Baske, Franklin W.....Flint
Bateman, L. G.....Flint
Benson, J. C.....Flint
Biggar, H. R.....Flint
Bishop, D. L.....Flint
Blakeley, A. C.....Flint
Bogart, Leon M.....Flint
Boles, Wm. P.....Flint
Bonathan, A. T.....Flint
Boughton, Thelma G. .....Bluefield, West Virginia
Bradley, Robt. .....Flint
Brain, R. Gordon.....Flint
Brasie, D. R.....Flint
Briggs, Guy D.....Flint
Burkett, L. V.....Flint
Burnell, B. E.....Flint
Burnell, Max.....Flint
Chambers, Myrton S.....Flint
Charters, John H.....Fenton
Childs, Lloyd H.....Flint
Clark, Clifford P.....Flint
Clift, M. William.....Flint
Colwell, C. W.....Flint
Connell, J. T.....Flint
Conover, G. V.....Flint
Conover, T. S.....Flint
Cook, Henry.....Flint
Covert, F. L.....Gaines
Credille, B. A.....Flint
Curry, George.....Flint
Curtin, J. H.....Flint
DelZingro, N.....Davison
Dimond, E. G.....Flint
Dodds, F. E.....Flint
Drewyer, Glen.....Flint
Edgerton, A. C.....Clio
Finkelstein, T.....Flint
Flynn, S. T.....Flint
Foley, S. I.....Flint
Fuller, H. T.....Mt. Morris
Gelenger, S. M.....Flint
Gibson, Edward D.....Flint
Gleason, N. Arthur.....Flint
Goering, George R.....Flint
Golden, H. Maxwell.....Flint
Goodfellow, B. T.....Flint
Gorne, S. S.....Flint
Graham, Hugh W.....Mt. Morris
Grover, H. F.....Flint
Guile, Earle .....Flint
Guile, G. S.....Flint
Gundry, G. L.....Grand Blanc
Gutow, I. .....Flint
Hague, R. F.....Flint
Halligan, Raymond S.....Flint
Handy, John W.....Flint
Harper, A. W.....Flint
Harper, Homer.....Flint
Hawkins, James E.....Flint
Hays, George A.....Flint
Hiscock, H. H.....Flint
Houston, James .....Swartz Creek
Hubbard, Wm. B.....Flint
Johnson, Frank.....Flint
Jones, Lafon.....Flint
Kirk, A. Dale.....Flint
Kretchmar, A. H.....Flint
Kurtz, J. J.....Flint
Lambert, L. A.....Flint
Logan, G. W.....Flushing
MacDuff, R. B.....Flint
MacGregor, D. M.....Flint
MacGregor, R. W.....Flint
Macksood, Joseph.....Flint
Malfroid, B. W.....Flint
Marsh, H. L.....Flint
Marshall, Wm. H.....Flint
Mason, Elta .....Flint
Matthewson, Guy C.....Flint
McArthur, A.....Flint
McGarry, Burton G.....Fenton
McGarry, R. A.....Flint
McGregor, J. C.....Flint
McKenna, O. W.....Flint
Miller, Bryce.....Flint
Miner, Frederick B.....Flint
Moore, John W.....Flint
Moore, Kenneth B.....Flint
Morrish, Ray S.....Flint
Morrissey, V. H.....Flint
Mosier, Edw. C.....Otisville
Odle, Ira .....Flint
Olson, James A.....Flint
O'Neil, C. H.....Flint
Orr, J. Walter.....Flint
Phillips, R. L.....Flint
Pratz, O. C.....Flint
Preston, Otto .....Flint
Randall, H. E.....Flint
Reeder, Frank E.....Flint
Reid, Wells C.....Goodrich
Rice, E. D.....Flint
Richeson, V. .....Flint
Roberts, Floyd A.....Flint
Rosenblum, Herman G.....Flint
Rundles, Walter Z.....Flint
Sandy, K. R.....Flint
Scavarda, Chas. J.....Flint
Scott, R. D.....Flint
Shantz, L. O.....Flint
Sheeran, Daniel H.....Flint
Shipman, Charles W.....Flint
Sleeman, Blythe R.....Linden
Smith, D. C.....Flint
Smith, E. C.....Flint
Sniderman, Benjamin .....Flint
Snyder, Charles E.....Swartz Creek
Spencer, J. A.....Flint
Steinman, F. H.....Flint
Stephenson, Robt. A.....Flint
Stevenson, W. W.....Flint
Streat, R. W.....Flint
Stroup, C. K.....Flint
Sutherland, J. K.....Flint
Sutton, George .....Flint
Sutton, M. R.....Flint
Thompson, Alvin .....Flint
Treat, D. L.....Flint
Wall, W. J.....Davison
Ware, Frank A.....Flint
Winchester, Walter H.....Flint
Woughter, Harold W.....Flint
Wheelock, A. S.....Flint
Wark, D. R.....Flint
White, Herbert .....Flint
Williams, W. S.....Flint
Willoughby, G. L.....Flint
Willoughby, L. L.....Flint
Wills, T. N.....Flint
Wright, D. R.....Flint
Wright, G. R.....Montrose
Wyman, J. S.....Flint

Gogebic County

Anderson, Chas. E.....Bessemer
Conley, W. C.....Ironwood
Crosby, Theodore S.....Ironwood
Eisele, D. C.....Ironwood
Gertz, M. A.....Ironwood
Gorrilla, A. C.....Ironwood
Lieberthal, M. J.....Ironwood
Lieberthal, Paul .....Ironwood
Maloney, F. G. H.....Ironwood
Nezworski, H. T.....Ramsay
O'Brien, A. J.....Ironwood
Pinkerton, H. A.....Ironwood
Pinkerton, W. J.....Bessemer
Rees, Thomas R.....Ironwood
Reid, John D.....Ironwood
Reynolds, F. L. S.....Ironwood
Sarvela, H. R.....Ironwood
Stevens, Charles E.....Bessemer
Tew, Wm. Ellwood.....Bessemer
Tressel, H. A.....Wakefield
Urquhart, C. C.....Ironwood
Wacek, W. H.....Ironwood

Grand Traverse-Leelanau-Benzie

Bolan, Ellis J.....Suttons Bay
Brownson, Jay J.....Kingsley
Brownson, Kneale.....Traverse City
Bushong, B. B.....Traverse City
Covey, E. L.....Honor
Ellis, Claude I.....Suttons Bay
Evans, E. E.....Oakland, Fla.
Gauntlett, J. W.....Traverse City
Goodrich, Dwight.....Traverse City
Grawn, F. A.....Traverse City
Hamilton, Earl E.....Traverse City
Holliday, George A.....Traverse City
Heune, Nevin .....Traverse City
Huston, Russell R.....Elk Rapids
Jerome, Jerome T.....Traverse City
Kitson, V. H.....Elk Rapids
Kyselka, H. B.....Traverse City
Lemen, Chas. E.....Traverse City
Lossman, R. T.....Traverse City
Murphy, Fred E.....Cedar
Nickels, M. M.....Traverse City
Osterlin, Mark .. ..Traverse City
Quinn, Henry M.....Copemish
Rennell, E. J.....Traverse City
Sheets, R. Philip.....Traverse City
Sladek, E. F.....Traverse City
Stone, Fordyce H.....Beulah
Swanton, L. .....Traverse City
Swartz, F. G.....Traverse City
Thacker, Fred R.....Frankfort
Thirlby, E. L.....Traverse City
Thompson, T. W.....Traverse City
Trautman, Fred D.....Frankfort
Way, Lewis R.....Traverse City
Weitz, Harry .....Traverse City
Zielke, I. H.....Traverse City
Zimmerman, J. G.....Traverse City

Gratiot-Isabella-Clare

Aldrich, Alfred L.....Ithaca
Barstow, D. K.....St. Louis
Barstow, Wm. E.....St. Louis
Becker, Myron G.....Edmore
Budge, M. J.....Ithaca
Burch, L. J.....Mt. Pleasant
Burt, C. E.....Ithaca
Carney, T. J.....Alma
Davis, L. L.....Mt. Pleasant
Dawson, Ralph E.....Blanchard
Dale, Edward C.....Shepherd
Drake, Wilkie M.....Breckenridge
DuBois, C. F.....Alma
Faber, Michael .....Ashley
Graham, Fred J.....Alma
Hall, B. C.....Pompeii
Hammerberg, Kuno.....Clare
Harrigan, W. L.....Mt. Pleasant
Hersee, Wm. E.....Mt. Pleasant
Hobbs, A. D.....St. Louis
Howell, Don M.....Alma
Johnson, P. R.....Mt. Pleasant
Lamb, E. T.....Alma
McArthur, Stewart C....Mt. Pleasant
Rondot, E. F.....Lake
Sanford, B. J.....Clare
Sarven, James D.....Middleton
Slattery, F. G.....Clare
Strange, Russell H.....Mt. Pleasant
Waggoner, R. L.....St. Louis
Wilcox, R. A.....Alma
Wilson, Earl C.....Harrison
Wolfe, K. P.....Alma
Wood, Cornelius B.....Clare

Hillsdale County

Alleger, W. E.....Pittsford
Bates, James E.....Camden
Bower, Chas. T.....Hillsdale
Bowers, M. H.....Hillsdale
Clobridge, C. E.....Allen
Davis, L. A.....Montgomery
Day, Luther W.....Jonesville
Ditmars, Wm. H.....Jonesville
Fisk, Fred B.....Jonesville
Green, B. F.....Hillsdale
Hamilton, A. J.....Hillsdale
Hanke, George R.....Ransom
Heald, J. E.....Hillsdale
Hodge, C. L.....Reading
Hughes, Henry F.....Hillsdale
Johnson, James H.....Hillsdale
Kinzel, R. W.....Litchfield
Kline, Fred D.....Litchfield
Mattson, H. F.....Hillsdale
Martindale, E. A.....Hillsdale
McFarland, O. G.....North Adams
McGarver, E. G.....Hillsdale
Miller, Harry C.....Hillsdale
Poppen, C. J.....Reading
Sterling, John S.....Jerome
Strom, A. W.....Hillsdale
Yeagley, J. L.....Waldron

Houghton-Baraga-Keweenaw

Abrams, James C.....Calumet
Aldrich, A. B.....Houghton
Aldrich, A. D.....Houghton
Aldrich, Leonard .....Hancock
Brewington, Geo. F.....Mohawk
Buckland, R. S.....Baraga
Burke, John J.....Hubbell
Coffin, Leslie E.....Painesdale
Cooper, C. A.....Hancock
Gregg, W. T. S.....Calumet
Janis, A. J.....Hancock
Kadin, Maurice .....Calumet

*Deceased February 2, 1939.

King, Wm. T.....Ahmeek
Kirton, Joseph R. W.....Calumet
LaBine, Alfred.....Houghton
Levin, Simon.....Houghton
Leo, L. S.....Houghton
*Maas, R. J.....Houghton
MacQueen, Donald K.....Laurium
Manthei, W. A.....Lake Linden
Marshall, Frank F.....L'Anse
McClure, Robt. J.....Calumet
Pleune, R. E.....Houghton
Quick, James B.....Laurium
Roberts, Melvin D.....Hancock
Roche, A. C.....Calumet
Rupprecht, C. H.....Calumet
Scott, Wm. P.....Houghton
Sloan, P. S.....Trimountain
Stern, Isadore.....Houghton
Stewart, G. C.....Hancock
Stewart, J. C. B.....Painesdale
Tinetti, Ernest F.....Laurium
Van Slyke, Wm. H.....Hancock
Waldie, George McLeod....Ishpeming
Ware, H. M.....Calumet
Wickliffe, T. P.....Calumet
Winkler, Henry J.....L'Anse

Huron-Sanilac Counties

Blanchard, E. W.....Deckerville
Caccamise, Jos. G.....Sebewaing
Cochran, Lewis E.....Peck
Gettel, Roy R.....Kinde
Gaston, Lloyd .....Sandusky
Gift, W. A.....Marlette
Hart, R. K.....Croswell
Henderson, J. Bates.....Pigeon

*Deceased April 10, 1939.

Herrington, Chas. I.....Bad Axe
Herrington, Willet J.....Bad Axe
Holdship, Wm. B.....Ubly
Howell, A. J.....Bay Port
Kirker, F. O.....Sandusky
Koch, D.....Brown City
Learmont, H. H.....Croswell
*Lunn, J. O.....Harbor Beach
Monroe, Duncan J.....Elkton
Morden, Chas. B.....Bad Axe
Norgaard, Hal V.....Marlette
Oakes, C. W.....Harbor Beach
Ritsema, John .....Sebewaing
Robertson, Collin G.....Sandusky
Scheurer, C. A.....Pigeon
Thumme, Harrison F.....Sebewaing
Tweedie, G. Evans.....Sandusky
Tweedie, S. Martin.....Sandusky
Webster, John C.....Marlette

Ingham County

Albers, J. H.....East Lansing
Albert, Wilford D.....Leslie
Barrett, J. E.....Lansing
Barnum, S. V.....Lansing
Barrett, C. D.....Mason
Bartholomew, Henry S.....Lansing
Bauer, Theodore I.....Lansing
Behen, Wm. C.....Lansing
Bellinger, E. G.....Lansing
Bradford, C. W.....Lansing
Breakey, Robt. S.....Lansing
Brubaker, E. .....Lansing
Brucker, Karl H.....Lansing
Bruegel, Oscar H.....East Lansing
Burhans, Robt. .....Lansing
Cameron, W. J.....Lansing
Campbell, Archibald M.....Lansing
Carr, Earl I.....Lansing
Christian, L. G.....Lansing
Clark, William E.....Mason
Cook, R. J.....Lansing
Corsaut, J. C.....Mason
Cushman, F. J.....Lansing
Darling, L. H.....Lansing
Davenport, C. S.....Lansing
DeVries, C. F.....Lansing
Doyle, Chas. R.....Lansing
Doyle, C. P.....Lansing
Drolett, Fred J.....Lansing
Drolett, Lawrence .....Lansing
Dunn, F. C.....Lansing
Dunn, F. M.....Lansing
Ellis, Bertha W.....Lansing
Ellis, C. W.....Lansing
Finch, Russell L.....Lansing
Fisher, D. W.....Lansing

*Deceased March 25, 1939.
†Deceased March 2, 1939.

Fosget, Wilbur W.....Lansing
Foust, E. H.....Lansing
*Freeland, O. H.....Mason
French, Horace L.....Lansing
Galbraith, Dugald A.....Lansing
Gardner, C. B.....Lansing
Goldner, R. E.....Lansing
Gudakunst, Don W.....Lansing
Gunderson, G. O.....Lansing
Guy, Spencer D.....Lansing
Hall, R. E.....Ypsilanti
Harris, Dean W.....Lansing
Harrold, J. F.....Lansing
Hart, L. C.....Lansing
Haynes, H. B.....Lansing
Haze, Harry A.....Lansing
Heckert, Frank B.....Lansing
Heckert, J. K.....Lansing
Hendren, Owen .....Williamston
Henry, L. L.....Lansing
Hermes, Ed. J.....Lansing
Himmelberger, R. J.....Lansing
Hodges, Kenneth P.....Lansing
Holland, Chas. F.....East Lansing
Huggett, Clare C.....Lansing
Huntley, Fred M.....Lansing
Hurth, M. S.....Lansing
Johnson, K. H.....Lansing
Jones, Francis A.....Lansing
Kalmbach, R. E.....Lansing
Keim, C. D.....Lansing
Kent, Edith Hall.....Lansing
Kent, Herbert K.....Lansing
Krafts, L. C.....Leslie
Larrabee, E. E.....Williamston
Loree, Maurice C.....Lansing
Lucas, T. A.....Lansing
Ludlum, L. C.....Lansing
McConnell, E. G.....Lansing
McCorvie, C. Ray.....East Lansing
McCoy, Earl M.....Grand Ledge
McCrumb, R. R.....Lansing
McGillicuddy, O. B.....Lansing
McGillicuddy, R. J.....Lansing
McIntyre, J. E.....Lansing
McNamara, Wm. E.....Lansing
McPherson, E. G.....Stockbridge
Mercer, Walter E.....East Lansing
Meyer, Hugh R.....Lansing
Miller, H. A.....Lansing
†Miller, R. E.....Lansing
Mitchell, A. B.....Lansing
Morrow, R. J.....Lansing
Newitt, Arthur W.....Lansing
Niles, B. D.....Lansing
Ochsner, P. J.....Lansing
Osborn, Samuel .....Lansing
O'Sullivan, Gertrude .....Mason
Owen, A. E.....Lansing
Phillips, R. H.....Lansing
Pinkham, R. A.....Lansing
Ponton, J. .....Mason
Prall, H. J.....Lansing
Randall, O. M.....Lansing
Richards, F. D.....DeWitt
Roberts, D. W.....Lansing
Robson, Edmund J.....Lansing
Rozan, J. S.....Lansing
Rozan, M. M.....Lansing
Russell, Claude V.....Lansing
Sander, John F.....Lansing
Sanford, Thomas M.....Lansing
Seger, Fred L.....Lansing
Shaw, Milton .....Lansing
Slemons, C. C.....Grand Rapids
Smith, Anthony C.....Mason
Smith, H. M.....Lansing
Smith, Lillian R.....Lansing

Snell, D. M.....Lansing
Snyder, LeMoyne .....Lansing
Spencer, Perry .....Lansing
Steiner, A. A.....Lansing
Stiles, Frank .....Lansing
Strauss, P. C.....Lansing
Tamblyn, F. W.....Lansing
Toothaker, Kenneth .....Lansing
Towne, Lawrence C.....Lansing
Troost, F. L.....Holt
Vander Slice, E. R.....Lansing
Vander Zalm, T. P.....Lansing
Wadley, R. .....Lansing
Warford, J. T.....Lansing
Watson, C. M.....Lansing
Webb, Roy O.....Okemos
Weinburgh, H. B.....Lansing
Welch, Wm. H.....Lansing
Wetzel, John O.....Lansing
Wight, W. G.....Lansing
Wiley, Harold W.....Lansing
Wellman, John M.....Lansing
Willson, Howard S.....Lansing
Wilson, Harry A.....Lansing

Ionia-Montcalm Counties

Bird, Wm. L.....Greenville
Bower, A. J.....Greenville
Bracey, L. E.....Sheridan
Braley, Frank .....Saranac
Bunce, E. P.....Trufant
Crunican, A. J.....Hubbardston
Dunkin, Lloyd S.....Greenville
Ferguson, F. H.....Carson City
Fleming, J. C.....Pewamo
Fox, Harold M.....Portland
Fuller, Rudolphus W.....Crystal
Geib, O. P.....Carson City
Hansen, M. M.....Greenville
Hargrave, F. A.....Palo
Haskell, Robt. H.....Northville
Hay, John R.....Saranac
Hoffs, M. A.....Lake Odessa
Imus, H. L.....Ionia
Johns, Joseph J.....Ionia
Kelsey, L. E.....Lakeview
Kling, V. F.....Ionia
LaVictoire, Isaac N.....Ionia
Lilly, Isaac S.....Stanton
Lintner, Roy C.....Ionia
Marsh, F. M.....Ionia
Marston, L. L.....Lakeview
Maynard, Herbert M.....Ionia
McCann, John J.....Ionia
Mintz, Morris J.....Greenville
Norris, Wm. W.....Portland
Peabody, C. H.....Lake Odessa
Pankhurst, C. T.....Ionia
Peacock, T. L.....Lake Odessa
Pinkham, J. F.....Belding
Robertson, P. C.....Ionia
Swift, E. R.....Lakeview
Van Duzen, V. L.....Belding
VanLoo, J. A.....Belding
Whitten, R. R.....Ionia
Willits, C. O.....Saranac

Jackson County

Ahronheim, J. H.....Jackson
Alter, R. H.....Jackson
Baker, G. M.....Parma
Balconi, Henry .....Brooklyn
Bartholic, F. W.....Grass Lake
Braunsdorf, R. L.....Jackson
Brown, H. A.....Jackson
Bullen, G. R.....Jackson
Chivers, R. W.....Jackson
Clarke, C. S.....Jackson
Cochrane, Wayne A.....Jackson
Cooley, Randall M.....Jackson
Corley, C.....Jackson
Corley, Ennis .....Jackson
Cox, Ferdinand .....Jackson
Crowley, Edw. D.....Jackson
Culver, Guy D.....Stockbridge
DeMay, C. E.....Jackson
Dengler, C. R.....Jackson
Edmonds, J. M.....Horton
Enders, W. H.....Jackson
Finton, Walter L.....Jackson
Finton, W. R.....Jackson
Foust, W. L.....Grass Lake
Gibson, F. J.....Jackson
Glover, H. G.....Jackson
Greenbaum, Harry .....Jackson
Hackett, T. E.....Jackson
Hanft, Cyril F.....Springport
Hanna, R. J.....Jackson
Hardie, G. C.....Jackson
Harris, Lester J.....Jackson
Hicks, Glenn C.....Jackson
Hoernschemeyer, J. L.....Jackson
Hungerford, P. R.....Concord
Huntley, W. B.....Jackson
Hurley, H. L.....Jackson
Keefer, A. H.....Concord
Kudner, Don F.....Jackson
Kugler, J. C.....Jackson
Lake, Wm. H.....Jackson
Lathrop, Wm. W.....Jackson
Leahy, E. O.....Jackson
Leonard, Clyde A.....Jackson
Lewis, E. F.....Jackson
Ludwick, J. E.....Jackson
McGarvey, W. E.....Jackson
McLaughlin, M. J.....Jackson
Meads, J. B.....Jackson
Miller, J. L.....Jackson
Munro, C. D.....Jackson
Munro, James E.....Jackson
Murphy, B. M.....Jackson
Newton, R. E.....Jackson
Nichols, R. H.....Leslie
O'Meara, James J.....Jackson
Otis, Grant L.....Jackson
Page, John W.....Jackson
Peterson, E. S.....Jackson
Philips, David P.....Jackson
Porter, H. W.....Jackson
Pray, Frank F.....Jackson
Pray, George R.....Jackson
Quillen, R. D.....Chelsea
Ransom, F. G.....Jackson
Riley, Philip .....Jackson
Roberts, Arthur J.....Jackson
Schepeler, Courtland W.....Brooklyn
Scheurer, Peter A.....Manchester
Schmidt, T. E.....Jackson
Scott, John .....Jackson
Seybold, G. A.....Jackson
Shaeffer, A. M.....Jackson
Smith, Dean W.....Jackson
Smith, John C.....Jackson
Snow, W. R.....Jackson
Speck, John W.....Jackson
Stewart, L. L.....Jackson
Sugar, Samuel .....Jackson
Susskind, M. V.....Jackson
Thayer, E. A.....Jackson
Thalner, L. F.....Jackson
Townsend, J. W.....Vandercook Lake
Tuthill, F. S.....Concord
Van Schoick, Frank.....Jackson
Van Schoick, J. D.....Hanover
Wertenberger, M. D.....Jackson
Wholihan, John W...Michigan Center
Wickham, W. A.....Jackson
Wilson, E. D.....Jackson
Wilson, E. G.....Jackson
Wilson, N. D.....Jackson
Winter, G. E.....Jackson

Kalamazoo County

Aach, Hugo .....Kalamazoo
Adams, R. U.....Kalamazoo
Alexander, C. A.....Kalamazoo
Ames, Edward .....Kalamazoo
Andrews, F. T.....Kalamazoo
Andrews, Sherman .....Kalamazoo
Armstrong, Robt. J.....Kalamazoo
Banner, Lawrence R.....Kalamazoo
Barnebee, J. Hosea.....Kalamazoo
Barnebee, J. W.....Kalamazoo
Barrett, F. Elizabeth.....Kalamazoo
Behan, Gerald .....Galesburg
Bennett, Chas. L.....Kalamazoo
Bennett, Keith .....Kalamazoo
Berry, J. F.....Kalamazoo
Bodmer, H. C.....Kalamazoo
Borgman, Wallace .....Kalamazoo
Boys, C. E.....Kalamazoo
Brooks, Ervin D.....Kalamazoo
Brown, I. W.....Kalamazoo
Burns, J. T.....Kalamazoo
Caldwell, George H.....Kalamazoo
Cobb, Horace R.....Kalamazoo
Cook, R. G.....Kalamazoo
Crawford, Kenneth .....Kalamazoo
Dean, Ray.....Three Rivers
DenBleyker, Walter .....Kalamazoo
DeWitt, L. H.....Kalamazoo
Dowd, B. J.....Kalamazoo
Doyle, F. M.....Kalamazoo
Ertell, Wm. F.....Kalamazoo
Fast, R. B.....Kalamazoo
Fopeano, John V.....Kalamazoo
Fortner, R. J.....Three Rivers
Fulkerson, C. B.....Kalamazoo
Fuller, R. T.....Kalamazoo
Fuller, Paul .....Kalamazoo
Gerstner, Louis.....Kalamazoo
Gilding, Joseph .....Vicksburg
Gilding, Z. L.....Vicksburg
Glenn, Audrey .....Kalamazoo
Grant, Fred. E.....Kalamazoo
Gregg, Sherman .....Kalamazoo
Harter, Randolph S.....Schoolcraft
Heersma, H. S.....Kalamazoo
Hildreth, R. C.....Kalamazoo
Hobbs, Edw. J.....Galesburg
Hodgman, Albert B.....Kalamazoo
Hoebeke, Wm. G.....Kalamazoo
Holder, Chas. .....Kalamazoo
Howard, W. H.....Galesburg
Hubbell, R. J.....Kalamazoo
Huyser, Wm. C.....Kalamazoo
Ilgenfritz, F. M.....Kalamazoo
Irwin, Wm. D.....Kalamazoo
Jackson, John B.....Kalamazoo
Jennings, W. O.....Kalamazoo
Kenzie, W. N.....Camp Custer
Klerk, W. J.....Kalamazoo
Koestner, Paul .....Kalamazoo
Lambert, R. H.....Kalamazoo
Lang, W. W.....Kalamazoo
Lavender, Howard .....Kalamazoo
Light, Richard U.....Kalamazoo
Light, S. Rudolph.....Kalamazoo
Littig, John .....Kalamazoo
MacGregor, J. R.....Kalamazoo
Malone, James G.....Kalamazoo
McCarthy, J. S.....Kalamazoo
McIntyre, Chas. H.....Kalamazoo
McNair, Rush .....Kalamazoo
Morter, Roy A.....Kalamazoo
Nibbelink, Benjamin .....Kalamazoo
Osborne, Chas. E.....Vicksburg
Patmos, Martin .....Kalamazoo
Peelen, J. W.....Kalamazoo
Peelen, Matthew .....Kalamazoo
Perry, Clifton .....Kalamazoo
Pratt, F. A.....Kalamazoo
Prentice, Hazel R.....Kalamazoo
Pullon, A. E.....Kalamazoo
Rickert, John A.....Allegan
Rigterink, G. H.....Kalamazoo
Rigterink, H. A.....Kalamazoo
Rockwell, A. H.....Kalamazoo
Rockwell, Donald C.....Kalamazoo
Sage, E. D.....Kalamazoo
Scholten, D. J.....Kalamazoo
Scholten, Wm. .....Kalamazoo
Schrier, C. M.....Kalamazoo
Schrier, Paul .....Kalamazoo
Schrier, Thomas .....Comstock
Scott, J. Murray.....Kalamazoo
Scott, Wm. A.....Kalamazoo
Sears, H. A.....Kalamazoo
Shackleton, Wm. E.....Kalamazoo
Shepard, Benj. A.....Kalamazoo
Shook, R. W.....Kalamazoo
Simpson, B. A.....Kalamazoo
Snyder, Roscoe F.....Kalamazoo
Sofen, Morris B.....Kalamazoo
Southworth, M. N.....Schoolcraft
Squires, David E.....Kalamazoo
Stewart, L. H.....Kalamazoo
Struthers, J. P. N.....Kalamazoo
Upjohn, E. Gifford.....Kalamazoo
Upjohn, L. N.....Kalamazoo
Van Ness, J. Howard.....Allegan
Van Urk, Thomas.....Kalamazoo
Volderauer, John C.....Kalamazoo
Wagar, Carl .....Schoolcraft
Walker, Burt D.....Kalamazoo
Weirich, Richard F.....Marcellus
Wenner, William F.....Kalamazoo
West, A. E.....Kalamazoo
Westcott, L. E.....Kalamazoo
Wilbur, E. P.....Kalamazoo
Youngs, A. S.....Kalamazoo
Youngs, C. A.....Kalamazoo

Kent County

Adams, F. A.....Grand Rapids
Aitken, Geo. T.....Grand Rapids
Bachman, G. A.....Grand Rapids
Baert, Geo. H.....Grand Rapids
Baker, Abel J.....Grand Rapids
Ballard, M. S.....Grand Rapids
Bell, Chas. M.....Grand Rapids
Beeman, Carl B.....Grand Rapids
Beeman, C. E.....Grand Rapids
Beets, Clarence W.....Grand Rapids
Billings, Elton P.....Grand Rapids
Bishop, T. P.....Grand Rapids
Bloxom, P. W.....Grand Rapids
Boet, F. A.....Grand Rapids
Bond, Geo. L.....Grand Rapids
Bosch, L. C.....Grand Rapids
Brayman, C. W.....Cedar Springs
Brook, J. D.....Grandville
Brotherhood, J. S.....Grand Rapids
Buesing, O. R.....Grand Rapids
Bull, Frank L.....Sparta
Burleson, John.....Grand Rapids
Burleson, Willard.....Grand Rapids
Burling, Wesley M.....Grand Rapids
Butler, Wm. J.....Grand Rapids
Cameron, Don Bruce.....Grand Rapids
Campbell, Alex M.....Grand Rapids
Cardwell, John F....Winter Park, Fla.
Carpenter, Luther Clarendon .....Grand Rapids
Chadwick, W. L.....Grand Rapids
Chamberlin, L. H.....Grand Rapids
Chandler, Donald.....Grand Rapids
Cilley, E. O.....Grand Rapids
Clapp, Henry W.....Grand Rapids
Claytor, R. W.....Grand Rapids
Collisi, H. S.....Grand Rapids
Colvin, W. G.....Grand Rapids
Corbus, Burton R.....Grand Rapids
Crane, Chas. V.....Grand Rapids
Crane, Harold D.....Grand Rapids
Cuncannan, M. E.....Grand Rapids
Currier, F. P.....Grand Rapids
Dales, Ernest W.....Grand Rapids
Damstra, H. J.....Grand Rapids
Davis, D. B.....Grand Rapids
Dean, Alfred W.....Grand Rapids
DeBoer, Guy Wm.....Grand Rapids
Dell, E. E.....Sand Lake
DeMaagd, Gerald.....Rockford
DeMol, Richard J.....Grand Rapids
Denham, R. H.....Grand Rapids
DePree, Isla G.....Grand Rapids
DePree, Joseph .....Grand Rapids
DeVel, Leon .....Grand Rapids
DeVries, Daniel.....Grand Rapids
Dewar, M. M.....Grand Rapids
Dixon, Willis L.....Grand Rapids
Doran, Frank .....Grand Rapids
Droste, James C.....Grand Rapids
DuBois, Wm. J.....Grand Rapids
Duiker, Henry.....Grand Rapids
Eaton, Robt. M.....Grand Rapids
Failing, John F.....Grand Rapids
Farber, Chas. E.....Grand Rapids
Faust, L. W.....Grand Rapids
Ferguson, Lynn A.....Grand Rapids
Ferguson, Ward S.....Grand Rapids
Ferrand, L.....Rockford
Fitts, Ralph L.....Grand Rapids
Flynn, J. D.....Detroit
Foshee, J. C.....Grand Rapids
Frantz, Chas. H.....Grand Rapids
Fuller, E. H.....Grand Rapids
Gaikema, E. W.....Grand Rapids
Gainey, James J.....Grand Rapids
Geenen, C. J.....Grand Rapids
Gillett, O. H.....Grand Rapids
Gorrell, John E.....Grand Rapids
Grant, Lee O.....Grand Rapids
Graybiel, Geo. P.....Caledonia
Griffith, L. S.....Grand Rapids
Hagerman, D. B.....Grand Rapids
Hammond, T. W.....Grand Rapids
Hayes, L. W.....Howard City
Heetderks, Dewey R.....Grand Rapids
Henry, James, Jr.....Grand Rapids
Herrick, Ruth.....Grand Rapids
Hill, A. M.....Grand Rapids
Hilt, Lawrence M.....Grand Rapids
Hodgen, J. T.....East Grand Rapids
*Holcomb, John N.....Grand Rapids
Holcomb, J. W.....Grand Rapids
Holdsworth, M. J.....Grand Rapids
Holkeboer, H. D.....Grand Rapids
Hollander, Stephen.....Grand Rapids
Hoogerhyde, Jack.....Grand Rapids
Hufford, A. R.....Grand Rapids
Hunderman, Edward.....Grand Rapids
Hutchinson, Robt. J.....Grand Rapids
Hyland, W. A.....Grand Rapids
Ingersoll, C. F.....Grand Rapids
Irwin, Thomas C.....Grand Rapids
Jaracz, W. J.....Grand Rapids
Kelly, Robt. E.....Grand Rapids
Kemmer, Thomas R.....Grand Rapids
Kendall, Eugene L.....Grand Rapids
Klaus, C. D.....Grand Rapids
Kniskern, P. W.....Grand Rapids
Kooistra, Kenry P.....Grand Rapids
Kremer, John.....Grand Rapids
Kreulen, H. J.....Grand Rapids
Laird, Robert G.....Grand Rapids
Lamb, George F.....Grand Rapids
Lanning, M. E.....Grand Rapids
Lanting, D. B.....Grand Rapids
LeRoy, Simeon.....Grand Rapids
Lieffers, Harry.....Grand Rapids
Lyman, Wm. D.....Grand Rapids
MacDonell, James A.....Lowell
MacPherson, Alex. G....Grand Rapids
Marrin, M. M.....Grand Rapids
Marsh, J. P.....Grand Rapids
Maurits, Reuben.....Grand Rapids
McKenna, J. L.....Grand Rapids
McKinlay, L. M.....Grand Rapids
McRae, John H.....Grand Rapids
Meengs, Jacob E.....Grand Rapids
Mehney, Gayle H.....Grand Rapids
Miller, J. Duane.....Grand Rapids
Miller, John J.....Marne
Mitchell, W. B.....Grand Rapids
Moen, Cornetta G.....Grand Rapids
Moleski, Stanley L.....Grand Rapids
Moll, Arthur M.....Grand Rapids
Moore, Vernor M.....Grand Rapids
Mulder, J. D.....Grand Rapids
Murphy, M. J.....Grand Rapids
Nelson, A. R.....Grand Rapids
Nesbitt, E. N.....Grand Rapids
Noordewier, Albert.....Grand Rapids
Northouse, Peter B.....Grandville
Northrup, Wm.....Grand Rapids
Nyland, Albertus.....Grand Rapids
Oliver, W. W.....Grand Rapids
Patterson, P. Wilfred....Grand Rapids
Pedden, J. R., Jr.....Grand Rapids
Phillips, J. W.....Grand Rapids
Pott, A. L.....Grand Rapids
Quigley, Ruth E.....Grand Rapids
Ralph, L. Paul.....Grand Rapids
Reed, Torrance.....Grand Rapids
†Rigterink, Hillis D.....Grand Rapids
Rigterink, J. W.....Grand Rapids
Riley, G. L.....Grand Rapids
Roberts, Mortimer E.....Grand Rapids
Robinson, Harold.....Grand Rapids
Rodgers, W. L.....Grand Rapids
Roth, Emil M.....Grand Rapids
Schermerhorn, L. J.....Grand Rapids
Schnoor, E. W.....Grand Rapids
Sevensma, Elisha S.....Grand Rapids
Sevey, L. E.....Grand Rapids
Shellman, Millard W.....Grand Rapids
Shepard, B. H.....Lowell
Smith, A. B.....Grand Rapids
Smith, Edwin M.....Grand Rapids
Smith, Ferris N.....Grand Rapids
Smith, R. Earle.....Grand Rapids
Smith, Richard R.....Grand Rapids
Snapp, Carl F.....Grand Rapids
Snyder, Clarence.....Grand Rapids
Southwick, George H....Grand Rapids
Steffensen, W. H.....Grand Rapids
Stonehouse, G. G.....Grand Rapids
Stover, Virgil E.....Grand Rapids
Stuart, Gerhardus J.....Grand Rapids
Sugg, Cullen E.....Grand Rapids
Swenson, H. C.....Grand Rapids
Ten Have, J.....Grand Rapids
Tesseine, A. J.....Grand Rapids
Teusink, J. H.....Cedar Springs
Thompson, A. B.....Grand Rapids
Thompson, Athol B.....Grand Rapids
Thompson, P. L.....Grand Rapids
Tidey, Marcus B.....Grand Rapids
Tiffany, Jos. C.....Grand Rapids
Torgerson, Wm. R.....Grand Rapids
Van Belois, Harvard...Grand Rapids
Van Bree, R. S.....Grand Rapids
Vanden Berg, Henry J...Grand Rapids
VanDuine, H. J.....Byron Center
Van Solkema, Andrew...Grand Rapids
Van Solkema, Arthur.....Grandville
Van Woerkom, Daniel..Grand Rapids
Veldman, Harold E.....Grand Rapids
Veenboer, Wm. H.....Grand Rapids
Vis, Wm. R.....Grand Rapids
Votey, Frank A.....Grand Rapids
Vyn, J. D.....Grand Rapids
Warnshuis, Frederick C. .....Boston, Massachusetts
Webb, Rowland.....Grand Rapids
Webster, G. W.....Grand Rapids
Wells, Merrill.....Grand Rapids
Wenger, A. V.....Grand Rapids
Wenger, John N.....Coopersville
Westrate, Paul.....Grand Rapids
Whalen, John M.....Grand Rapids
Whinery, Joseph B.....Grand Rapids
Willits, P. W.....Grand Rapids
Winter, Garrett E.....Grand Rapids
‡Wolfe, H. C.....Grand Rapids
Woodburne, A. R.....Grand Rapids
Wright, John M.....Grand Rapids
Yegge, J. P.....Kent City

*Deceased April 25, 1939.
†Deceased April 20, 1939.
‡Deceased April 11, 1939.

Lapeer County

Berghorst, John.....Imlay City
Best, Herbert M.....Lapeer
Bishop, G. Clare.....Almont
Burley, David H.....Almont
Chapin, Clarence D.....Columbiaville
Dick, Kenneth W.....Imlay City
Dorland, Clark.....Lapeer
Hanna, Fred R.....Lapeer
Jackson, Carl C.....Imlay City
Johnson, H. R.....Imlay City
McBride, J. R.....Lapeer
Merz, Henry G.....Lapeer
O'Brien, Daniel J.....Lapeer
Rehn, A. T.....Lapeer
Thomas, J. Orville.....North Branch
Tinker, F. A.....Lapeer
Zemmer, H. B.....Lapeer

Lenawee County

Abraham, A. O.....Hudson
Beebe, I. J.....Morenci
Blanchard, L. E.....Hudson
Bland, J. P.....Adrian
Case, C. W.....Onsted
Chase, Artemus W.....Adrian
Claflin, G. M.....Deerfield
Clark, A. D.....Adrian
Claxton, W. T.....Britton
Colbath, W. E.....Adrian
Growt, Bowers H.....Addison
Hall, George C.....Adrian
Hambly, Scott B.....Onsted
Hammel, H. H.....Tecumseh
Hardy, P. B.....Tecumseh
Heffron, C. H.....Adrian
Heffron, Howard H.....Adrian
Helzerman, Ralph F.....Tecumseh
Hewes, A. B.....Adrian
Hornsby, W. B.....Clinton
Howland, F. A.....Adrian
Iler, Harris D.....Clinton
Jewett, Wm. E., Jr.....Adrian
Lamley, Arthur E.....Blissfield
Loveland, Horace H.....Tecumseh
McKenzie, W. S.....Adrian
McCue, F. J.....Hudson
Marsh, R. G. B.....Tecumseh
Miller, Perry Lynford.....Adrian
Morden, Esli T.....Adrian
Patmos, Bernard.....Adrian
Peters, W. L.....Morenci
Raabe, E. C.....Morenci
Rawson, A. P.....Addison
Rogers, J. D.....Adrian
Spalding, A. L.....Hudson
Stafford, Leo J.....Adrian
Tubbs, R. V.....Blissfield
Van Dusen, C. A.....Blissfield
Whitney, O.....Adrian
Wood, A. C.....Adrian

Livingston County

Backe, John C.....Detroit
Brigham, Jeannette.....Howell
Burt, K. L.....Howell
Cameron, Duncan A.....Brighton
Duffy, Ray M.....Pinckney
Finch, E. D.....Howell
Glenn, Bernard H.....Fowlerville
Hayner, R. A.....Howell
Hendren, J. J.....Fowlerville
Hill, Harold C.....Howell
Huntington, H. G.....Howell
Laboe, Edward W.....Howell
Leslie, G. L.....Howell
Lojacono, Salvatore.....Howell
McDowell, Guy M.....Howell
McGregor, Archie J.....Brighton
McIndoe, R. Bruce.....Howell
*Mellus, H. P.....Brighton
Sigler, Hollis L.....Howell
Stephens, D. C.....Howell

*Deceased April 18, 1939.

Luce County

Bohn, Frank P.....Newberry
Campbell, Earl H.....Newberry
Gibson, Robert E.....Newberry
*Hart, Clarence D.....Newberry
Perry, Henry E.....Newberry
Purmort, William R., Jr....Newberry
Spinks, Robert Earl.....Newberry
Surrell, Mathew A.....Newberry
Swanson, Geo. F.....Newberry
Toms, Chas. B.....Newberry

*Deceased April 9, 1939.

Macomb County

Allen, Leroy K.....Roseville
Bailey, R.....St. Clair Shores
Banting, O. F.....Richmond
Berry, Henry G.....Mt. Clemens
Bower, A. B.....Armada
Caster, E. Wilbur.....Mt. Clemens
Croman, Joseph M., Jr....Mt. Clemens
Croman, Joseph M., Sr....Mt. Clemens
Curlett, James E.....Roseville
Dudzinski, E. J.....New Baltimore
Engels, J. A.....Richmond
Fluemer, Oswald.....Mt. Clemens
Greenshields, Robert.....Romeo
Hawley, R. E.....St. Clair Shores
Heine, A.....Mt. Clemens
Kane, Wm. J.....Mt. Clemens
Lane, W. D.....Romeo
Lynch, Russell E.....Center Line
Moore, G. F.....Mt. Clemens
Mulligan, P. T.....Mt. Clemens
Reichman, Joseph J.....Mt. Clemens
Reitzel, R. H.....Mt. Clemens
Rivard, Charles L.....St. Clair Shores
Roth, G. F.....Armada
Rothman, A. M.....Roseville
Ruedisueli, Clarence A....East Detroit
Russell, T. P.....Center Line
Salot, R. F.....Mt. Clemens
Scher, Joseph N.....Mt. Clemens
Seaman, John.....New Haven
Sibrans, W. A.....East Detroit
Smith, Milton C.....Mt. Clemens
Sturm, Fred A.....St. Clair Shores
Thompson, A. A.....Mt. Clemens
Wellard, Henry C.....Algonac
Wiley, D. Bruce.....Utica
Wiley, Herbert H.....Utica
Wolfson, Victor H.....Mt. Clemens

Manistee County

Bryan, Kathryn M.....Manistee
Campbell, J. Gary.....Escanaba
Fairbanks, Stephen.....Augusta
Grant, C. L.....Manistee
Hansen, E. C.....Manistee
Jamieson, David A.....Arcadia
Konopa, John F.....Manistee
Lewis, Lee A.....Manistee
MacMullen, Harlen D.....Manistee
Miller, E. B.....Manistee
Norconk, Ward H.....Bear Lake
Oakes, Ellery A.....Manistee
Ogilvie, G. D.....Manistee
Ramsdell, Homer A.....Manistee
Switzer, Lars.....Manistee
Whitley, Alec.....Bear Lake

Marquette-Alger Counties

Barnes, Haldor.....Munising
Bennett, Arthur K.....Marquette
Berry, Robert F.....Marquette
Bertucci, J. P.....Ishpeming
Bottum, Charles N.....Marquette
Casler, W. L.....Marquette
Cooperstock, M.....Marquette
Corcoran, W. A.....Ishpeming
Corneliuson, Goldie B.....Lansing
Crane, J. D.....Ishpeming
Drury, Charles P.....Marquette
Elzinga, E. R.....Marquette
Erickson, Arvid W.....Ishpeming
Fennig, F. A.....Marquette
Gullickson, Miles.....Negaunee
Hanelin, H. A.....Marquette
Hartt, P. P.....Ishpeming
Hirwas, C. L.....Marquette
Hornbogen, D. P.....Marquette
Howe, L. W.....Marquette
Janes, R. Grant.....Marquette
Keskey, George I.....Marquette
Lambert, W. C.....Marquette
LeGolvan, C.....Marquette
McIntyre, D. R.....Negaunee
Mudge, W. A.....Negaunee
Niemi, O. I.....Marquette
Picotte, Wilfrid S.....Ishpeming
Robbins, Nelson J.....Negaunee
Schutz, W. J.....Munising
Sicotte, Isaiah.....Michigamme
Swinton, A. L.....Marquette
Talso, Jacob.....Ishpeming
Vandeventer, Vivian H.....Ishpeming
Van Riper, Paul.....Champion
Wickstrom, Geo.....Munising

Mason County

Blanchette, Victor J.....Custer
Farrier, Robert.....Ludington
Goulet, L. J.....Ludington
Hoffman, Howard.....Ludington
Hunt, Ivan L.....Scottville
Kirwan, Edward J.....Ludington
Martin, Wm. S.....Ludington
Ostrander, R. A.....Ludington
Paukstis, Chas.....Ludington
Spencer, C. M.....Scottville

Mecosta-Osceola-Lake

Bruggema, Jacob.....Evart
Campbell, James B.....Big Rapids
Chess, Leo F.....Reed City
Franklin, Benjamin L.....Remus
Grieve, Glenn.....Big Rapids
Igloe, Max C.....Big Rapids
Ivkovich, Paul.....Evart
Kilmer, Paul B.....Reed City
MacIntyre, Donald.....Big Rapids
McGrath, V. J.....Reed City
Peck, Louis K.....Barryton
Phillips, R. W.....Remus
Soper, Charles L.....Barryton
Treynor, Thomas P.....Big Rapids
White, J. A.....Morley
Yeo, Gordon H.....Big Rapids

Menominee County

Corkill, C. C.....Menominee
DeWane, F. J.....Menominee
Flanagan, Clarence B.....Menominee
Heidenreich, John R.....Daggett
Jones, Wm. S.....Menominee
Kaye, J. T.....Menominee
Kerwell, K. C.....Stephenson
Mason, Stephen C.....Menominee
Peterson, A. R.....Daggett
Sawbridge, Edward.....Stephenson
Schaen, Irvin.....Hermansville
Scully, John C.....Menominee
Sethney, Henry T.....Menominee
Towey, J. W.....Powers

Midland County

Ballmer, Robert S.....Midland
Beck, Frank K.....Coleman
Gay, Harold Howard.....Midland
Grewe, N. C.....Midland
High, C. V., Jr.....Midland
MacCallum, Charles.....Midland
Maynard, W. A.....Coleman
Meisel, Edward H.....Midland
Pike, Melvin H.....Midland
Place, Edwin H.....Midland
Rice, Robert E.....Midland
Sherk, J. H.....Midland
Sjolander, Gust.....Midland
Towsley, W. D.....Midland

Monroe County

Ames, Florence.....Monroe
Barker, Vincent L.....Monroe
Bond, W. W.....Monroe
Cooper, E. M.....Rockwood
Denman, D. C.....Monroe
Dusseau, S. V.....Erie
Ewing, R. T.....Monroe
Fieldhouse, B. J.....Ida
Gelhaus, Wm. J.....Monroe
Golinvaux, C. J.....Monroe
Heffernan, John F.....Carleton
Humphrey, J. A.....Monroe
Hunter, M. A.....Monroe
Jennings, W. M.....Monroe
Landon, Herbert W.....Monroe
Long, Edgar C.....Monroe
Long, Sara.....Monroe
McDonald, T. A.....Monroe
McGeoch, R. W.....Monroe
McMillin, J. H.....Monroe
Meck, H. L.....Dundee
Parmelee, O. E.....Lambertville
Reisig, A. H.....Monroe
Siffer, J. J.....Monroe
Smith, William A.....Petersburg
Stolpestad, C. T.....Monroe
Williams, Robert J.....Monroe
Williamson, George W.....Dundee

Muskegon County

Anderson, A. J.....Muskegon
August, R. V.....Muskegon
Barnard, Helen.....Muskegon
Bartlett, F. H.....Muskegon
Beers, Charles.....Holton
Bloom, C. J.....Muskegon
Boyd, D. R.....Muskegon
Bradshaw, Park S.....Muskegon
Cavanagh, R. G.....Muskegon
Chapin, William S...Muskegon Heights
Closz, H. F.....Muskegon
Cohan, Sol G.....Muskegon
Colignon, C. M.....Muskegon
Collier, C. C.....Whitehall
D'Alcorn, Ernest.....Muskegon
Dasler, A. F.....Muskegon Heights
Derezinski, Clement F.....Muskegon
Diskin, Frank.....Muskegon
Douglas, Robert.....Muskegon
Drummond, S. J.....Casnovia
Durham, C. J.....Muskegon
Eckerman, C. T.....Muskegon
Fillingham, Enid.....Muskegon
Fleischman, C. B.....Muskegon
Fleishman, Norman.....Muskegon
Foss, Ed. O.....Muskegon
Garber, F. W., Jr.....Muskegon
Garland, J. O.....Muskegon
Gillard, James.....Muskegon
Goltz, Martha H.....Montague
Hagen, William A.....Muskegon
Hannum, F. W.....Muskegon
Harrington, A. F.....Muskegon
Harrington, R. J.....Muskegon
Hartwell, S. W.....Muskegon
Heneveld, John.....Muskegon
Holly, Leland E.....Muskegon
Holmes, Roy H.....Muskegon
Jackson, S. A.....Muskegon
Kane, Thomas J.....Muskegon
Keilin, Marie.....Muskegon
Kerr, H. J.....Muskegon
Kniskern, E. L.....Muskegon
LeFevre, George L.....Muskegon
LeFevre, Louis.....Muskegon
LeFevre, William M.....Muskegon
LaCore, O. M.....Muskegon Heights
Lange, E. W.....Muskegon
Lauretti, Emil.....Muskegon
Laurin, V. Samuel.....Muskegon
Loomis, John L.....Muskegon
Loughery, H. B.....Muskegon
Mandeville, C. B.....Muskegon
Medema, Paul E.....Muskegon
Meengs, M. B.....Muskegon
Miller, Philip L.....Muskegon
Morford, F. N.....Muskegon
Morse, Bertram W.....Whitehall
Mulligan, A. W.....Muskegon
Oden, Constantine L.....Muskegon
Olson, R. G.....Muskegon Heights
Pangerl, Carl.....Muskegon Heights
Pettis, Emmett.....Muskegon
Powers, Lunette.....Muskegon
Price, Leonard.....Muskegon
Pyle, H. J.....Muskegon
Risk, R. A.....Muskegon
Risk, Robert D.....Muskegon
Scholle, W.....Muskegon
Spoor, A. A.....Muskegon
Stone, Maxwell E.....Muskegon
Swartout, W. C.....Muskegon
Teifer, Charles A.....Muskegon
Thieme, S. W.....Ravenna
Thornton, E. S.....Muskegon
Wilke, C. A.....Montague
Wilson, P. S.....Muskegon

Newaygo County

Barnum, W. H.....Fremont
Deur, T. R.....Grant
Geerlings, Lambert.....Fremont
Geerlings, Willis.....Fremont
Gordon, B. F.....Newaygo
Johnstone, K. T.....Grant
Lettinga, D.....Grant
Moore, H. R.....Newaygo
Sears, Richard.....Fremont
Stevens, S.....Baldwin
Stryker, O. D.....Fremont
Tompsett, Arthur C.....Hesperia

Northern Michigan

Armstrong, Robert B.....Charlevoix
Blum, Benj. B.....Petoskey
Burns, Dean C.....Petoskey
Chapman, W. E.....Cheboygan
Conkle, Guy C.....Boyne City
Conway, Wm. S.....Petoskey
Dean, Carleton.....Charlevoix
Duffie, Don Hastings...Central Lake
Engle, Ralph D.....Petoskey
Frank, Gilbert E.....Harbor Springs
Grillet, F. F.....Alanson
Harrington, H. M.....East Jordan
Larson, Ole.....Levering
Lashmet, Floyd H.....Petoskey
Litzenburger, A. F.....Boyne City
MacGregor, J. G.....Boyne City
Mast, W. H.....Petoskey
Mayne, Frederick C.....Cheboygan
McCarroll, James C.....Cheboygan
McMillan, Fraley.....Charlevoix
Miller, Samuel L.....Cheboygan
Palmer, Russell.....St. James
Parks, W. H.....Petoskey
Rodgers, John.....Bellaire
Reed, Wilbur F.....Cheboygan
Saltonstall, G. B.....Charlevoix
Stringham, J. R.....Cheboygan
Van Dellen, Jerrian.....Ellsworth
Van Leuven, B. H.....Petoskey
Winter, Joseph A.....Mackinaw City

Oceana County

Day, Clinton.....Hart
Hayton, A. R.....Shelby
Heard, William.....Pentwater
Heysett, N. W.....Ft. Wayne, Indiana
Jensen, Viggo.....Shelby
Lemke, Walter M.....Shelby
Munger, L. P.....Hart
Nicholson, John H.....Hart
Reetz, F. A.....Shelby
Wood, Merle G.....Hart

Oakland County

Abbott, V. C.....Pontiac
Aschenbrenner, Z. R.....Farmington
Bachelder, Frank S.....Pontiac
Baker, Frederick A.....Pontiac
Baker, Robert H.....Pontiac
Barker, Howard B.....Pontiac
Bauer, Ernest W.....Hazel Park
Beck, O. O.....Birmingham
Benning, C. H.....Royal Oak
Borland, Alexander.....Pontiac
Boucher, R. E.....Royal Oak
Bradley, Everett L.....Pontiac
Burke, Chauncey G.....Pontiac
Burt, F. J.....Holly
Butler, Samuel A.....Pontiac
Cameron, D. A.....Royal Oak
Capano, A. O.....Pontiac
Christie, J. W.....Pontiac
Church, J. E.....Pontiac
Cobb, Leon F.....Pontiac
Cooper, Robert J.....Pontiac
Cottrell, Martha S.....Novi
Couchman, Boyd.....Royal Oak
Crissman, H. C.....Ferndale
Cudney, Ethan B.....Pontiac
Dahlgren, Carl.....Keego Harbor
Darling, C. G., Jr.....Pontiac
Ekelund, Clifford T.....Pontiac
Farnham, Lucius Augustine....Pontiac
Faulconer, Albert.....Rochester
Faust, Earl.....Hazel Park
Ferris, Ralph G.....Birmingham
Fitzpatrick, Francis.....Pontiac
Fox, John W.....Pontiac
Furlong, Harold A.....Pontiac
Gariepy, Bernard F.....Royal Oak
Gatley, C. R.....Pontiac
Gatley, L. Warren.....Pontiac
Geib, Ormond D.....Rochester
Gerls, Frank B.....Pontiac
German, Frank D.....Pontiac
Gordon, J. H.....Birmingham
Grant, William A.....Milford
Green, Wm. M.....Pontiac
Hackett, Daniel J.....Pontiac
Halsted, Lee H.....Farmington
Hammer, Carl W.....Oxford
Hammonds, E. E.....Birmingham
Harris, Landy E.....Pontiac
Harvey, Campbell.....Pontiac
Hassberger, J. B.....Birmingham
Hathaway, Clarence L.....Lake Orion
Hathaway, William.....Rochester
Henry, Colonel R.....Ferndale
Huffman, M. R.....Milford
Howlett, E. V.....Pontiac
Hoyt, D. F.....Pontiac
Hume, T. W. K.....Auburn Heights
Hurst, Daniel D.....Pleasant Ridge
Jones, Morrell M.....Pontiac
Kemp, W. Lloyd.....Birmingham
Lambert, Alvin Gerald.....Ferndale
Lambie, John S.....Pontiac
Larson, B. T.....Pontiac
Lewis, Sol M.....Ferndale
Lockwood, C. E.....Holly
Mackenzie, O. R.....Walled Lake
Margrave, Edmund D.....Royal Oak
Markley, John Martin.....Pontiac
McConkie, J. P.....Birmingham
McCue, Francis J.....Pontiac
McNeill, H. H.....Pontiac
Meinke, Herman.....Hazel Park
Mercer, Frank A.....Pontiac
Miller, Raymond.....Clarkston
Mitchell, B. M.....Pontiac
Mooney, C. A.....Ferndale
Morrison, J. S.....Royal Oak
Neafie, Chas. A.....Pontiac
Norup, John.....Berkley
Ohlmacher, A. P.....Royal Oak
Olsen, Gertrude Emily.....Pontiac
Olsen, Richard E.....Pontiac
Osgood, S. W.....Clawson
Pauli, Theodore H.....Pontiac
Pool, Harry H.....Pontiac
Porritt, Ross J.....Pontiac

Prevette, Isaac C.....Pontiac
Quamme, Roy K.....Pontiac
Raynale, George P.....Birmingham
Reid, F. T.....Clawson
Riker, Aaron D.....Pontiac
Roehm, Harold R.....Birmingham
Rooks, Wendell H.....Pontiac
Rowley, Laurie G.....Drayton Plains
Russell, Vincent P.....Royal Oak
St. John, Harold A.....Pontiac
Seaborn, A. J.....Royal Oak
Sheffield, L. C.....Pontiac
Sherman, G. A.....Pontiac
Sibley, Harry A.....Pontiac
Simpson, E. K.....Pontiac
Smith, Carleton A.....Pontiac
Smith, Donald S.....Pontiac
Spears, M. L.....Pontiac
Spencer, Lloyd H.....Royal Oak
Spoehr, Eugene L.....Ferndale
Spohn, Earl W.....Royal Oak
Stanley, Wm. F.....Ferndale
Starker, Clarence T.....Pontiac
Steinberg, Norman.....Royal Oak
Stolpman, A. K.....Birmingham
Sutherland, Clark J.....Clarkston
Sutton, Palmer E.....Royal Oak
Terry, Stuart.....Pontiac
Tuck, Raymond G.....Pontiac
Uloth, Milton J.....Ortonville
Wagner, Ruth E.....Royal Oak
Watson, Arthur M.....Lake Orion
Watson, Thomas Y.....Birmingham
Wiers, W. W.....Royal Oak
Williams, H. W.....Pontiac
Yoh, Harry B.....Pontiac
Young, Arthur R.....Pontiac

O.M.C.O.R.O.

Beeby, Robert J.....West Branch
Clippert, C. G.....Grayling
Coulter, Keith Douglas.....Gladwin
Crandell, C. H.....West Branch
Drescher, Geo. A.....Lewiston
Egle, Joseph L.....Gaylord
Ford, Ruey O.....Gaylord
Harris, Levi A.....Gaylord
Hendricks, Henning V.....Kalkaska
Inman, J.....Kalkaska
Jardine, Hugh.....West Branch
Keyport, C. R.....Grayling
LaPorte, L. A.....Gladwin
Lee, F. W.....Fairview
Martzowka, M. A.....Roscommon
McDowell, A. S.....West Branch
McDowell, Douglas B.....West Branch
McKillop, G. L.....Gaylord
Peckham, Richard.....Gaylord
Sargent, Leland E.....Kalkaska
Stealy, Stanley.....Grayling
Thompson, Sue H.....West Branch

Ontonagon County

Bender, Jesse L.....Mass
Evans, Edwin J.....Ontonagon
Hogue, H. B.....Ewen
McHugh, Frank W.....Ontonagon
Rubinfeld, S. H.....Ontonagon
Strong, W. F.....Ontonagon
Toivonen, Pearl.....Ontonagon
Whiteshield, C. F.....Trout Creek

Ottawa County

Beernink, E. H.....Grand Haven
Bloemendaal, D. C.....Zeeland
Bloemendal, W. B.....Grand Haven
Boone, Cornelius E.....Zeeland
Bos, G. D.....Holland
Clark, N. H.....Holland
Coburn, Milan.....Coopersville
DeVries, H. G.....Holland
DeWitt, S. L.....Grand Haven
Harms, H. P.....Holland
House, M. E.....Holland
Huizinga, John G.....Holland
Irvin, H. C.....Holland
Kemme, Gerrit.....Zeeland
Kools, Wm. Clarence.....Holland
Leenhouts, Abraham.....Holland
Long, C. E.....Grand Haven
Mulder, C. D.....Spring Lake
Nichols, Rudolph H.....Holland
Presley, Wm. J.....Grand Haven
Stickley, A. E.....Coopersville
Tappan, W. M.....Holland
Ten Have, Ralph.....Grand Haven
Timmerman, E. C.....Coopersville
Ver Duin, J.....Grand Haven
Van Der Berg, E.....Holland
Vander Velde, O.....Holland
Wells, Kenneth.....Spring Lake
Westrate, William.....Holland
Wiersma, Silas C.....Allendale
Winters, John K.....Holland
Winters, Wm. G.....Holland

Saginaw County

Ackerman, G. L.....Saginaw
Anderson, W. K.....Saginaw
Bagley, U. S.....Saginaw
Bagshaw, David E.....Saginaw
Bennett, R. B.....St. Charles
Berberovich, T. F.....Saginaw
Bishop, H. M.....Saginaw
Brender, Fred P.....Frankenmuth
Brock, W. H.....Saginaw
Busch, Frank J.....Saginaw
Butler, M. G.....Saginaw
Cady, F. J.....Saginaw
Calomeni, Anthony D.....Saginaw
Cameron, Allen K.....Saginaw
Campbell, L. A.....Saginaw
Clark, Wilbert B.....Saginaw
Claytor, Archer A.....Saginaw
Cortopassi, Andre.....Saginaw
Curts, James.....Saginaw
Durman, Donald.....Saginaw
Ely, C. W.....Saginaw
English, Wm. F.....Saginaw
Ernst, Arthur Randolph.....Saginaw
Eymer, Esther.....Saginaw
Fleschner, Thos. E.....Birch Run
Freeman, Frederick W.....Saginaw
Gage, David P.....Saginaw
Galsterer, E. C.....Saginaw
Goman, Louis D.....Saginaw
Grigg, Arthur.....Saginaw
Grigg, Arthur P.....Saginaw
Hand, Eugene.....Saginaw
Harvie, L. C.....Saginaw
Helmkamp, Herbert O.....Saginaw
Hester, E. G.....Saginaw
Hill, Victor L.....Saginaw
Hohn, F. J.....Saginaw
Imerman, Harold M.....Saginaw
Jaenichen, R.....Saginaw
James, J. W.....Saginaw
Jiroch, R. S.....Saginaw
Jordan, Leo A.....Saginaw
Kahn, Paul.....Frankenmuth
Keller, S. S.....Saginaw
Kemp, J. M.....Saginaw
Kempton, R. M.....Saginaw
Kirchgeorg, Clemens.....Frankenmuth
Kleekamp, H. G.....Saginaw
Knott, Harriet A.....Saginaw
Leitch, Arthur E.....Saginaw
Ling, Ernest M.....Hemlock
Lohr, O. W.....Saginaw
Longstreet, Martha L.....Saginaw
Luger, F. E.....Saginaw
Lurie, Robert.....Saginaw
MacKinnon, Edwin D.....Saginaw
MacMeekin, James Ware.....Saginaw
Markey, Jos.....Saginaw
Martzowka, Wm. P.....Saginaw
Maurer, John A.....Saginaw
McClinton, N. F.....Saginaw
McGregor, R.....Saginaw
McKinney, Alex R.....Saginaw
McLandress, Joshua A.....Saginaw
Meyer, Henry J.....Saginaw
Moon, A. R.....Saginaw
Morris, Keith M.....Saginaw
Mudd, Richard D.....Saginaw
Murphy, Albert P.....Saginaw
Novy, F. O.....Saginaw
O'Reilly, William J.....Saginaw
Ostrander, Frank W.....Freeland
Phillips, Homer A.....Saginaw
Pietz, Frederick.....Saginaw
Pillsbury, Edward A.....Frankenmuth
Poole, Frank A.....Saginaw
Richter, Emil P. W.....Saginaw
Richter, Harry J.....Saginaw
Rosenberg, Robert.....Saginaw
Ryan, R. S.....Saginaw
Sample, Chester H.....Saginaw
Sample, J. T.....Saginaw
Schaiberger, Elmer.....Saginaw
Sheldon, S. A.....Saginaw
Slack, Walter K.....Saginaw
Stander, A. C.....Saginaw
Stolz, Harold F.....Saginaw
Thomas, Dale.....Saginaw
Thompson, A. B.....Saginaw
Tiedke, G. E.....Saginaw
Toshach, C. E.....Saginaw
Wagar, Spencer.....Saginaw
Wallace, Herbert C.....Saginaw
Wheeler, Dorothy.....Saginaw
Wilson, H. Roy.....Saginaw
Wixted, John F.....Chesaning
Wixted, Julia L.....Chesaning
Yntema, S.....Saginaw

St. Clair County

Armsbury, Aaron B.....Marine City
Atkinson, J. M.....Port Huron
Attridge, J. A.....Port Huron
Battley, J. C. Sinclair.....Port Huron
Biggar, R. J.....Port Huron
Borden, C. L.....Yale
Boughner, W. H.....Algonac
Bovee, M. E.....Port Huron
Brush, Howard O.....Port Huron
Burke, Ralph M.....Port Huron
Burley, Jacob H.....Port Huron
Callery, A. L.....Port Huron
Campbell, R. H.....Saint Clair
Carney, F. V.....Saint Clair
Clyne, B. C.....Yale
Cooper, T. H.....Port Huron
DeGurse, T. E.....Marine City
Derck, W. P.....Marysville
Engelman, A. A.....Saint Clair
Fraser, Robert C.....Port Huron
Heavenrich, Theodore F.....Port Huron
Holcomb, R. J.....Marine City
Kesl, Geo. Matthew.....Port Huron
LeGalley, K. B.....Port Huron
Licker, R. R.....Port Huron
Ludwig, F. E.....Port Huron
MacKenzie, Alexander J.....Port Huron
MacNeil, Roy A.....Capac
MacPherson, C. A.....Saint Clair
Martin, C. S.....Port Huron
McColl, D. J.....Port Huron
McColl, Neil J.....Port Huron
McCue, Christopher.....Goodells
McCue, Chrystal C.....Goodells
Meredith, E. W.....Port Huron
Patterson, D. Webster.....Port Huron
Pollack, Donald A.....Yale
Reynolds, Annie E.....Port Huron
Ryerson, W. W.....Port Huron
Schaefer, W. A.....Port Huron
Sites, E. C.....Port Huron
Smith, Reginald.....Port Huron
Thomas, C. F.....Port Huron
Treadgold, Douglas.....Port Huron
Vroman, M. E.....Port Huron
Waltz, J. F.....Capac
Ware, John R.....Port Huron
Wass, Henry C.....St. Clair
Waters, George.....Port Huron
Wellman, Joseph E.....Port Huron
Wight, William G.....Yale
Witter, Gordon L.....Port Huron
Zemmer, A. L.....Port Huron

St. Joseph County

Buell, Martin....Sturgis
Dodrill, F. E....Three Rivers
Fiegel, S. A....Sturgis
Hoekman, Aben....Constantine
Holm, Arvid....Three Rivers
Kane, David M....Sturgis
Miller, C. G....Sturgis
O'Dell, J. H....Three Rivers
Parrish, Marion F....Sturgis
Pennington, H. C....White Pigeon
Pierce, H. W....Colon
Porter, C. G....Centerville
Raisch, Fred J....White Pigeon
Rice, John W....Sturgis
Shaw, G. D....Mendon
Sheldon, J. P....Sturgis
Slote, L. K....Constantine
Springer, R. A....Centerville
Sweetland, G. J....Constantine
Weir, Dale C....Three Rivers
Wilkerson, Nina C....Sturgis
Zimont, R. D....Constantine

Shiawassee County

Alexander, Reuben G....Laingsburg
Arnold, Alfred L., Jr....Owosso
Arnold, Alfred L., Sr....Owosso
Bates, L. F....Durand
Brandel, J. M....Owosso
Brown, Richard J....Owosso
Buzzard, Walter Davenport..Chesaning
Carney, Edward J....Durand
Cramer, George L. G....Owosso
Crane, C. A....Corunna
Fillinger, W. B....Ovid
Greene, I. W....Owosso
Haviland, James J....Owosso
Hume, Arthur M....Owosso
Hume, Harold A....Owosso
Janci, Julius....Owosso
Linden, V. E....Durand
McElmurry, N. K....Perry
McKnight, E. R....Owosso
Parker, W. T....Owosso
Pochert, R. C....Owosso
Richards, C. J....Durand
Sackrider, Geo. P....Owosso
Shepherd, W. F....Owosso
Slagh, E. M....Elsie
Soule, Glenn T....Henderson
Stewart, George W....Owosso
Taylor, W. M....Ovid
Wade, G. B....Laingsburg
Ward, Walter E....Owosso
Watts, Fred A....Owosso
Weinkauf, W. F....Corunna
Wilcox, Anna L....Owosso
Wilcox, C. M....Owosso

Tuscola County

Barbour, Harry A....Mayville
Bates, George....Kingston
Cook, Raymond....Akron
Dickerson, Willert W....Wahjamega
Dixon, Robert L....Wahjamega
Donahue, Theron....Cass City
Flett, Richard O....Millington
Fox, Denton B....Gagetown
Gugino, Frank James....Reese
Handy, J. E....Caro
Hoffman, T. E....Vassar
Howlett, R. R....Caro
Johnson, O. G....Mayville
Kaven, G. H....Unionville
MacRae, L. D....Gagetown
Maurer, J. G....Reese
Merrill, Elmer H....Caro
Morris, Frank L....Cass City
Petrie, William....Caro
Ross, Alexander T....Wahjamega
Rundell, Annie Stevens....Vassar
Ruskin, D. B....Fairgrove
Savage, Lloyd L....Caro
Spohn, U. G....Fairgrove
Starmann, Bernard....Cass City
Swanson, E. C....Vassar
Vail, Harry F....Unionville
Vatz, Jack A....Millington
Von Renner, Otto....Vassar

Van Buren County

Bope, Wm. P....Decatur
Boothby, F. M....Lawrence
Diephus, Bert....South Haven
Gano, Avison....Bangor
Giffen, John R....Bangor
Greenman, Newton H....Decatur
Hall, E. J....Hartford
Hoyt, W. F....Paw Paw
Itzen, J. F....South Haven
Kingman, J. G....Decatur
Lowe, Edwin G....Bangor
Maxwell, J. C....Paw Paw
McNabb, A. A....Lawrence
Murphy, Norman D....Bangor
Palmer, Clayton H....Hartford
Penoyar, C. L....South Haven
Riley, G. M....Gobles
Sayre, Philip....South Haven
Spalding, R. W....Gobles
Steele, Arthur H....Paw Paw
Ten Houten, Chas....Paw Paw
Terwilliger, Edwin....South Haven
Wilkinson, Chester A....Kendall
Williams, F. N....Hartford
Young, Wm. R....Lawton

Washtenaw County

Adams, James F....Ann Arbor
Agate, George H....Ann Arbor
Alexander, John....Ann Arbor
Arnold, Harry L....Ann Arbor
Austin, F. C....Ann Arbor
Badgley, C. E....Ann Arbor
Balyeat, Gordon W....Ann Arbor
Barker, Paul....Ann Arbor
Barnwell, John B....Ann Arbor
Barr, A. S....Ann Arbor
Barss, Harold D....Ypsilanti
Bartlett, R. M....Ann Arbor
Bassow, Paul....Ann Arbor
Beebe, Hugh M....Ann Arbor
Bell, Margaret....Ann Arbor
Belote, G. H....Ann Arbor
Belser, Walter....Ann Arbor
Bethell, Frank Hartsuff....Ann Arbor
Bigg, Edward....Ann Arbor
Boyd, David A....Ann Arbor
Brace, William M....Ann Arbor
Breakey, James R....Upsilanti
Britton, H. B....Ypsilanti
Brown, Philip....Ypsilanti
Brown, Willis E....Ann Arbor
Brownell, Durwin....Ann Arbor
Bruce, James D....Ann Arbor
Buscaglia, C. J....Ypsilanti
Camp, Carl Dudley....Ann Arbor
Clements, Glenn T....Ann Arbor
Coller, Frederick A....Ann Arbor
Conn, Jerome W....Ann Arbor
Cowie, D. M....Ann Arbor
Cummings, H. H....Ann Arbor
Curtis, Arthur C....Ann Arbor
Davis, Fenimore E....Ann Arbor
DeJong, Russell....Ann Arbor
DeTar, John S....Milan
Donaldson, S. W....Ann Arbor
Dowman, Chas. E....Ann Arbor
Dunstone, H. C....Ypsilanti
Durfee, M. L....Ann Arbor
Emerson, H. W....Ann Arbor
Failing, Joseph H....Ann Arbor
Field, Henry, Jr....Ann Arbor
Folsome, Clair Edwin....Ann Arbor
Forsythe, Warren E....Ann Arbor
Fralick, F. Bruce....Ann Arbor
Freyberg, Richard H....Ann Arbor
Frye, Carl H....Ann Arbor
Furstenberg, Albert C....Ann Arbor
Ganzhorn, Edwin C....Ann Arbor
Gardiner, Sprague....Ann Arbor
Gates, John L....Ann Arbor
Gates, Neil A....Ann Arbor
German, J. W....Ypsilanti
Goldhamer, S. Milton....Ann Arbor
Gordon, Vida H....Ann Arbor
Gulde, Andros....Chelsea
Haight, Cameron....Ann Arbor
Hammond, George....Ann Arbor
Hammond, W. W., Jr....Plymouth
Hannum, M. R....Milan
Harris, Bradley M....Ypsilanti
Harris, H. W....Ann Arbor
Healey, Clarie E....Ann Arbor
Hessler, Harvey W....Ann Arbor
Haynes, Harley A....Ann Arbor
Himler, Leonard E....Ann Arbor
Hodges, Frederick J....Ann Arbor
Howard, S. C....Ann Arbor
Isaacs, Raphael....Ann Arbor
Jackson, Howard C....Ann Arbor
Jimenez, Buenaventura....Ann Arbor
Johnson, Lester J....Ann Arbor
Johnson, Vincent C....Ann Arbor
Johnston, Franklin D....Ann Arbor
Jordan, Paul H....Ann Arbor
Kahn, Edgar A....Ann Arbor
Keene, Clifford H....Ann Arbor
Kemper, J. W....Ann Arbor
Kleinschmidt, Earl D....Ann Arbor
Kleinschmidt, Gladys....Ann Arbor
Klingman, Theophile....Ann Arbor
Knoll, Leo....Ann Arbor
Kretzschmar, Norman R....Ann Arbor
La Fever, Sidney L....Ann Arbor
Langford, Theron....Ann Arbor
Lathrop, Frank D....Ann Arbor
Law, John L....Ann Arbor
Lichty, Dorman E....Ann Arbor
Lilly, Coral Adelbert....Ann Arbor
List, Carl F....Ann Arbor
Lounsbury, James B....Ann Arbor
MacKaye, Lavina G....Ann Arbor
Mackenzie, Aileen McQuinn..Ypsilanti
Maddock, Walter G....Ann Arbor
Malcolm, Karl D....Ann Arbor
Marshall, Mark....Ann Arbor
Martin, Donald....Ypsilanti
Maxwell, James H....Ann Arbor
McEachern, Thomas H....Ann Arbor
Mellencamp, Franklin J....Ann Arbor
Metzger, Ida....Ypsilanti
Miller, Harold....Saline
Miller, Norman F....Ann Arbor
Muehlig, Geo. F....Ann Arbor
Myers, Dean W....Ann Arbor
Nesbit, Reed M....Ann Arbor
Newburgh, L. H....Ann Arbor
Oliphant, L. W....Ann Arbor
Patterson, Ralph M....Ann Arbor
Peck, Willis S....Ann Arbor
Peet, Max....Ann Arbor
Peterson, Reuben....
Duxbury, Massachusetts
Pillsbury, Chas. B....Ypsilanti
Pollard, H. M....Ann Arbor
Prout, Gordon J....Saline
Raphael, Theophile....Ann Arbor
Ratliff, Rigdon K....Ann Arbor
Ransom, Henry....Ann Arbor
Riecker, H. H....Ann Arbor
Rife, Charles S....Ann Arbor
Riggs, H. W....Ann Arbor
Ross, Howard....Ann Arbor
Rourke, Anthony J. J....Ann Arbor
Sacks, Wilma....Ann Arbor
Schnute, Louise F....Ann Arbor

Schumacker, W. E.....Ann Arbor
Sheldon, John M.....Ann Arbor
Sink, Emory W.....Ann Arbor
Smalley, Marianna.....Ann Arbor
Snow, Glenadine.....Ypsilanti
Snow, James S.....Ann Arbor
Sodeman, William A.....Ann Arbor
Solis, Jeanne C.....Ann Arbor
Steiner, L. G.....Ann Arbor
Stryker, Homer.....Ann Arbor
Sturgis, Cyrus C.....Ann Arbor
Sundwall, John.....Ann Arbor
Teed, Reed Wallace.....Ann Arbor
Thieme, E. Thurston.....Ann Arbor
Towsley, Harry A.....Ann Arbor
Vander Slice, David.....Ann Arbor
Twiss, Arthur R.....Ann Arbor
Waggoner, R. W.....Ann Arbor
Wallace, J. B.....Saline
Wanstrom, Ruth.....Ann Arbor
Washburne, Charles L.....Ann Arbor
Weinman, Edward B.....Ann Arbor
Weller, Carl V.....Ann Arbor
Wessinger, J. A.....Ann Arbor
Wile, Udo J.....Ann Arbor
Williamson, F. B.....Ypsilanti
Wilson, Frank N.....Ann Arbor
Wisdom, Inez.....Ann Arbor
Woods, J. J.....Ypsilanti
Worth, M. H.....Ypsilanti
Wright, Walter J.....Ypsilanti
Wylie, Wm. C.....Dexter
Yoder, O. R.....Ypsilanti

Wayne County

Adams, James Robert.....Dearborn
Abrams, Harry M.....Detroit
Adelson, Sidney L.....Detroit
Adler, Leopold.....Detroit
Adler, Sidney.....Detroit
Agins, Jack.....Detroit
Agnelly, Edward J.....Detroit
Agnew, George H.....Detroit
Albrecht, Herman F.....Detroit
Aldrich, E. Gordon.....Detroit
Alford, E. S.....Belleville
Allen, Norman M.....Detroit
Allen, Raymond B.....Detroit
Alles, Russell W.....Detroit
Allison, Frank B.....Detroit
Allison, Herbert C.....Detroit
Altemeier, Wm. A.....Detroit
Altman, Raphael.....Detroit
Altshuler, Ira M.....Detroit
Altshuler, Samuel S.....Detroit
Amberg, Emil.....Detroit
Ames, C. C.....Detroit
Amolsch, Arthur L.....Detroit
Amos, Thomas G.....Detroit
Anderson, Bruce.....Detroit
Anderson, Walter L.....Detroit
Andries, Joseph H.....Detroit
Andries, Raymond C.....Detroit
Ankley, J. W.....Detroit
Anslow, Robert E.....Detroit
Appel, Phillip R.....Detroit
Appelman, H. B.....Detroit
Arehart, Burke W.....Detroit
Armstrong, Arthur G.....Detroit
Armstrong, Oscar S..New Orleans, La.
Arnold, Effie.....Detroit
Aronstam, Noah E.....Detroit
Ascher, Meyer S.....Detroit
Ashe, Stilson R.....Detroit
Ashley, L. Byron.....Detroit
Ashton, F. B.....Highland Park
Asselin, J. L.....Detroit
Atchison, Russell M.....Northville
August, Harry E.....Detroit
Axelson, A. U.....Detroit
Babcock, Kenneth B.....Detroit
Babcock, Myra E.....Detroit
Babcock, W. L.....Detroit
Babcock, W. W.....Detroit
Bach, Walter F.....Detroit
Bacon, Vinton A.....Detroit
Baer, Ramond B.....Detroit
Bagley, Harry E.....Dearborn
Bailey, Don A.....Detroit
Bailey, Louis J.....Detroit
Baker, Clarence.....Detroit
Balaga, F. T.....Detroit
Balcerski, Matthew A.....Detroit
Ballard, Charles S.....Detroit
Balser, Charles W.....Detroit
Baltz, James I.....Detroit
Barker, F. Marion.....Grosse Pointe
Barnett, Saul E.....Detroit
Barone, Charles J.....Detroit
Barrett, Wyman D.....Detroit
Bartemeier, Leo H.....Detroit
Barton, J. R.....Detroit
Bates, Gaylord S.....Detroit
Bauer, A. Robert.....Detroit
Bauer, Lester Eugene.....Detroit
Baugh, R. H.....Detroit
Baumann, W. L.....Detroit
Baumer, Moe.....Detroit
Baumgarten, Elden C.....Detroit
Beame, A. Duane.....Detroit
Beaton, Colin.....Detroit
Beattie, Robert.....Detroit
Beaver, Donald C.....Detroit
Beck, Eva F.....Eloise
Becker, Abraham.....Detroit
Becker, Jos. Wm.....Detroit
Becklein, C. L.....Detroit
Bedell, A.....Detroit
Beeuwkes, L. E.....Dearborn
Begle, Howell L.....Detroit
Behn, Claud W.....Detroit
Belanger, Henry.....Detroit
Bell, J. Kenner.....Detroit
Bell, William M.....Detroit
Bennett, Germany E.....Detroit
Bennett, Harry B.....Detroit
Bennett, Zina B.....Detroit
Benson, C. D.....Detroit
Benson, Davis A.....Detroit
Benson, Roland R.....Detroit
Bentley, Neil I.....Detroit
Berent, Morris S.....Detroit
Bergo, Howard L.....Detroit
Berkowitz, Wm. E.....Detroit
Berman, Harry S.....Detroit
Berman, Robert.....Detroit
Berman, Sidney.....Detroit
Bernard, Walter G.....Detroit
Bernath, Gerald J.....Detroit
Bernbaum, Bernard.....Detroit
Bernfield, Martin A.....Detroit
Bernstein, Albert E.....Detroit
Bernstein, Samuel S.....Detroit
Bertram, B.....Detroit
Best, T. H. Edward.....Detroit
Besancon, J. H.....Detroit
Bevington, Harry G.....Detroit
Bicknell, Edgar A.....Detroit
Bicknell, Frank B.....Detroit
Biddle, Andrew P.....Detroit
Birch, John R.....Detroit
Birkelo, Carl C.....Detroit
Bittrich, Norbert M.....Detroit
Black, Perry S.....Detroit
Blaess, Marvin J.....Detroit
Blain, Alexander W.....Detroit
Blaine, Max.....Detroit
Blanchard, Fred N.....Detroit
Blashill, James B.....Detroit
Bleier, Joseph.....Detroit
Bloch, Abraham.....Detroit
Blodgett, William E.....Detroit
Blumenthal, Franz L.....Detroit
Boccia, James J.....Detroit
Boehm, John D.....Detroit
Boell, Arthur F.....Detroit
Bohn, Stephen.....Detroit
Boland, J. Rolland.....Detroit
Boles, A. E.....Detroit
Bookmeyer, R. H.....Detroit
Bovill, E. G.....Detroit
Bower, Franklin T.....Detroit
Bowers, Leo J.....Detroit
Bowman, Frank E.....Detroit
Boyd, John H.....Trenton
Brachman, D. S.....Detroit
Bracken, Andrew H.....Dearborn
Bradshaw, Wm. H.....Detroit
Braley, Wm. N.....Detroit
Branch, Hira E.....Detroit
Brand, Benjamin.....Detroit
Brando, Russell G.....Detroit
Brandt, Edward L.....Detroit
Braun, Lionel.....Detroit
Breitenbecher, Edw. R.....Detroit
Brennan, Thomas J.....Detroit
Breon, Guy L.....Detroit
Brengle, Deane R.....Detroit
Briegel, Walter A.....Detroit
Brines, O. A.....Detroit
Bringard, Elmer E.....Detroit
Brisbois, Harold J.....Plymouth
Brodersen, Harvey S.....River Rouge
Bromme, William.....Detroit
Brooks, A. L.....Detroit
Brooks, Clark D.....Detroit
Brooks, Charles W.....Detroit
Brosius, William L.....Detroit
Broudo, Philip H.....Detroit
Brough, Glen A.....Detroit
Brown, A. O.....Detroit
Brown, Gordon T.....Detroit
Brown, Harvey F.....Detroit
Brown, Henry S.....Detroit
Brown, John R.....Detroit
Brown, Stanley H.....Detroit
Brownell, Paul G.....Detroit
Brunk, Andrew S.....Detroit
Brunk, C. F.....Detroit
Brunke, Bruno B.....Detroit
Bryce, John D.....Detroit
Budson, Daniel.....Detroit
Buell, Charles E., Jr.....Detroit
Buesser, Frederick G.....Detroit
Buller, H. L.....Detroit
Bullock, Earl S.....Detroit
Burgess, Chas. M.....Detroit
Burgess, Jay M.....Detroit
Burgess, Josephus M.....Northville
Burns, Robert T.....Detroit
Burstein, Harry S.....Detroit
Burstein, Morris M.....Detroit
Burnstein, I. Marvin.....Detroit
Burnstine, Perry P.....Detroit
Burr, George C.....Detroit
Burton, D. T.....Detroit
Bush, Glendon J.....Detroit
Bush, Lowell M.....Detroit
Buss, John A.....Detroit
Butler, Harry J.....Detroit
Butler, L. H.....Detroit
Butler, Volney N.....Detroit
Butterworth, Herman K...Lincoln Park
Buttram, Edward J.....Detroit
Byington, Garner M...Grosse Pte. Park
Caldwell, J. Evart.....Detroit
Calkins, H. N.....Detroit
Callaghan, T. T.....Detroit
Campau, George H.....Detroit
Campbell, Don M.....Detroit
Campbell, Duncan A.....Detroit
Campbell, Duncan.....Detroit
Campbell, Malcolm D.....Detroit
Campbell, Mary B.....Detroit
Candler, Clarence.....Detroit
Canter, Gayle E.....Detroit
Cantor, M. O.....Detroit
Caplan, Leslie.....Detroit
Caraway, James E.....Wayne
Carey, Cornelius.....Detroit
Carleton, L. H.....Detroit
Carlucci, Peter F.....Detroit
Carmichael, E. K.....Detroit
Carpenter, C. H.....Detroit
Carpenter, C. J.....Detroit
Carpenter, Glenn B.....Detroit
Carr, J. G.....Detroit
Carroll, E. H.....Detroit
Carroll, Lona B.....Detroit
Carstens, Henry R.....Detroit
Carter, John M.....Detroit
Carter, L. E.....Detroit
Cassidy, Wm. J.....Detroit
Castrop, C. W.....Dearborn
Cathcart, Edward.....Detroit
Catherwood, Albert E.....Detroit
Caton, Dorothy Fisher.....Detroit
Cavell, Roscoe Wm.....Eloise
Caughey, Manley D.....Detroit
Cetlinski, C. A.....Hamtramck
Chance, J. H.....Detroit
Chapman, Aaron L.....Detroit
Chapnick, H. A.....Detroit
Chase, Clyde H.....Detroit
Chene, George C.....Detroit
Chenik, Ferdinand.....Detroit
Chester, W. P.....Detroit
Chipman, W. A.....Detroit
Chittenden, George E.....Detroit
Chittick, William R...San Diego, Calif.
Chostner, G. C.....Detroit
Christensen, C. A.....Dearborn
Christopoulos, D. G.....Detroit
Chrouch, Laurence A.....Detroit
Church, Aloysius S.....Eloise
Ciprian, Joseph E.....Detroit
Clark, Benjamin W.....Detroit
Clark, C. M.....Detroit
Clark, Donald V.....Detroit
Clark, George E.....Detroit
Clark, Harry G.....Detroit
Clarke, Emilie Arnold.....Detroit
Clarke, George L.....Detroit
Clarke, Norman E.....Detroit
Clausen, Claire H.....Detroit
Clifford, Charles H.....Detroit

Clifford, Thomas P.....Detroit
Clinton, Wm. R.....Detroit
Clippert, J. C.....Grosse Ile.
Coan, Glenn L.....Wyandotte
Coates, Carl Amos.....Dearborn
Cochrane, Edgar G.....Detroit
Cohn, Daniel E.....Detroit
Cohoe, Don A.....Detroit
Cole, Fred H.....Detroit
Cole, James E.....Detroit
Cole, Wyman C. C.....Detroit
Coleman, Margarete W.....Detroit
Coleman, Wm. G.....Detroit
Coll, Howard R.....Detroit
Collins, A. N.....Detroit
Collins, Edmund F.....Detroit
Colvin, Leslie T.....Detroit
Colyer, Raymond G.....Detroit
Condit, L. Irving.....Detroit
Connelly, Richard C.....Detroit
Connolly, Frank.....Detroit
Connolly, John P.....Detroit
Connor, Guy L.....Detroit
Connors, J. J.....Detroit
Conrad, E. R.....Detroit
Cooksey, Warren B.....Detroit
Cooley, Thomas B.....Detroit
Coolidge, Maria Belle.Grosse Pte. Park
Cooper, Edmond L.....Detroit
Cooper, James B.....Detroit
Cope, H. E.....Detroit
Corbett, John J.....Detroit
Coseglia, Robert P.....Detroit
Cosgrove, Wm. J.....Detroit
Costello, Russell T.....Detroit
Cothran, Robert M.....Detroit
Cotruro, L. D.....Detroit
Cotton, S. O.....Detroit
Courville, Chas. W.....Detroit
Cowan, Angus L.....Detroit
Cowan, Wilfrid.....Detroit
Coyne, Douglas Ruthven.....Detroit
Craig, Henry R.....Eloise
Crane, Langdon T.....Detroit
Cree, Walter J.....Detroit
Crews, Thomas H.....Detroit
Croll, L. J.....Detroit
Crossen, Henry F.....Detroit
Croushore, J. E.....Detroit
Cruikshank, Alexander.....Detroit
Curhan, Joseph H.....Detroit
Curry, F. S.....Detroit
Curtis, Frank E.....Detroit
Cushman, H. P.....Detroit

Dail, Oran C.....Detroit
D'Alleva, A. J.....Detroit
Dana, Harold M.....Detroit
Danforth, J. C.....Detroit
Danforth, Mortimer E.....Detroit
Darling, Milton A.....Detroit
Darpin, Peter H.....Detroit
Davidson, Harry O.....Detroit
Davies, Thomas S.....Detroit
Davies, Windsor S.....Detroit
*Davis, C. R.....Detroit
Davis, Egbert F.....Detroit
Davis, James E.....Detroit
Day, J. Claude.....Detroit
Defnet, William A.....Detroit
DeHoratiis, Joseph.....Detroit
DeKleine, E. Hoyt.....Detroit
Demaray, John F.....Detroit
Dempster, James H.....Detroit
DeNike, A. James.....Detroit
Denis, George M.....Detroit
Derleth, Paul E.....Detroit
DeWaele, Paul L.....Detroit
DeWitt, A. S.....Detroit
Dibble, Harry F.....Detroit
Dickson, B. R.....Detroit
Diebel, Nelson W.....Detroit
Dietzel, H. O.....Detroit
Dill, Hugh L.....Detroit
Dill, J. Lewis.....Detroit
Dillard, Malcolm P.....Detroit
Dittmer, Edwin.....Detroit
Dixon, Fred W.....Detroit
Dixon, Ray S.....Detroit
Dodds, John C.....Detroit
Dodenhoff, C. F.....Detroit
Dodenhoff, P. C.....Detroit
Domzalski, C. A.....Detroit
Donald, Douglas.....Detroit
Donald, William M.....Detroit
Donovan, John D.....Detroit
Dorsey, John M.....Detroit
Doty, Chester A.....Detroit
Doub, Howard P.....Detroit
Douglas, Bruce H.....Detroit
Douglas, Clair L.....Detroit
Dovitz, Benjamin W.....Detroit
Dowdle, Edward.....Detroit
Dowling, Harvey E.....Detroit
Dowling, Pearl Christie.....Detroit
Downer, Ira G.....Detroit
Doyle, George H.....Detroit
Drake, James J.....Detroit
Drews, Robert S.....Detroit
Droock, Victor.....Detroit
Droste, Arnold T.....Dearborn
Drummond, Donald L.....Detroit
Dubin, Joseph J.....Dearborn
Dubnove, Aaron.....Detroit
DuBois, Paul W.....Detroit
Dubpernell, Karl.....Detroit
Dubpernell, Martin S.....Detroit
Duffy, Edward A.....Detroit
Dundas, Edw. M.....Detroit
Dunlap, Henry A.....Detroit
Dunn, Cornelius E.....Detroit
Durocher, Edmund J.....Ecorse
Dutchess, Charles E.....Detroit
Dwaihy, Paul.....Detroit
Dwyer, Francis.....Detroit
Dysarz, T. T.....Detroit
Dziuba, John F.....Detroit

Eades, Charles C.....Detroit
Eaton, Crosby D.....Detroit
Edgar, Russell G.....Detroit
Elliott, Wm. G.....Detroit
Ellis, Seth W.....Detroit
Elvidge, Robert J.....Detroit
Ely, Lloyd L.....Grosse Pointe
Emmert, H. C.....Detroit
Engel, Earl H.....Wyandotte
Engel, John B.....Detroit
Ensign, Dwight C.....Detroit
Ensing, Osborn.....Detroit
Epstein, S. G.....Detroit
Erickson, Milton H.....Eloise
Erkfitz, Arthur W.....Detroit
Erman, Joseph J.....Detroit
Eschbach, Joseph W.....Dearborn
Estabrook, Bert U.....Detroit
Ettinger, Clayton J.....Detroit
Evans, Leland S.....Redford
Evans, William A.....Detroit
Evans, William A., Jr.....Detroit

Falick, Mordecai Louis.....Detroit
Fallis, Lawrence S.....Detroit
Fandrich, Theodore.....Detroit
Farbman, Aaron A.....Detroit
Farbman, Simon S.....Detroit
Fauman, Davis H.....Detroit
Fay, George E.....Detroit
Felcyn, W. George.....Detroit
Feldstein, Martin Z.....Detroit
Fellers, Ray L.....Detroit
Fellman, Abraham B.....Detroit
Fenton, E. H.....Detroit
Fenton, Meryl M.....Detroit
Fenton, R. F.....Detroit
Fenton, Stanley C.....Detroit
Ferguson, Thos. W.....Detroit
Ferrera, Louis V.....Detroit
Fettig, Carl A.....Detroit
Fine, Edward.....Detroit
Finn, Eva M.....Detroit
Fischer, Frederick J.....Detroit
Fisher, O. O.....Detroit
Fisher, R. L.....Detroit
Fitzgerald, E. W.....Detroit
Fitzgerald, James M.....Detroit
Flaherty, H. J.....Detroit
Flaherty, N. W.....River Rouge
Flaherty, S. A.....Detroit
Flora, William R.....Detroit
Flower, J. A.....Detroit
Foley, Hugh S.....Dearborn
Font, Anthony J.....Detroit
Foote, James A.....Detroit
Forbes, Edwin B.....Detroit
Ford, F. A.....Detroit
Ford, Sylvester.....Detroit
Ford, Walter D.....Detroit
Fordell, F. S.....Detroit
Forrester, Alex V.....Detroit
Foster, Daniel P.....Detroit
Foster, Linus J.....Detroit
Foster, Owen C.....Detroit
Foster, Wm. L.....Detroit
Foster, W. M.....Detroit
Fowler, William.....Detroit
Frank, M. Nathaniel.....Detroit
Fraser, H. F.....Detroit
Frazer, Mary Margaret.....Detroit
Freedman, John.....Detroit
Freeman, D. K.....Detroit
Freeman, Mabel.....Detroit
Freeman, Thelma.....Detroit
Freese, John A.....Detroit
Fremont, Joseph C.....Detroit
Freund, Hugo A.....Detroit
Friedlaender, Bernhard.....Detroit
Friedman, I. H.....Detroit
Frothingham, George E.....Detroit
Gabe, Sugmund.....Detroit
Gaberman, David B.....Detroit
Galantowicz, H. C.....Detroit
Gandonyi, Laslo.....Detroit
Galerneau, D. B.....Van Dyke, Mich.
Garbutt, Victor L.....Detroit
Gariepy, L. J.....Detroit
Gaston, Herbert B.....Detroit
Gates, Nathaniel H.....Detroit
Gehrke, August E.....Detroit
Geib, Ledru O.....Detroit
Geiter, Clyde W.....Detroit
Geitz, Wm. A.....Detroit
Gellert, I. S.....Detroit
Gemeroy, J. C.....Detroit
George, A. W.....Detroit
Gerondale, Elmond J.....Detroit
Gigante, Nicola.....Detroit
Gignac, Arthur L.....Detroit
Gillman, R. W.....Detroit
Ginsberg, Harold I.....Detroit
Gittins, Perry C.....Detroit
Glasgow, Gordon K.....Detroit
Glassman, Samuel.....Detroit
Glazer, Walter S.....Detroit
Glees, J. L.....Detroit
Glick, M. J.....Detroit
Glowacki, B. F.....Detroit
Gmeiner, Clarence C.....Detroit
Goerke, Elmer.....Romulus
Goetz, Angus G.....Detroit
Goldberg, Arthur.....Detroit
Goldberg, Nathan.....Detroit
Goldin, M. I.....Detroit
Goldman, Perry.....Detroit
Goldstone, R. R.....Detroit
Gonne, Wm. S.....Detroit
Goodrich, B. E.....Detroit
Gordon, Douglas L.....Detroit
Gordon, John W.....Detroit
Gordon, William H.....Detroit
Gorelick, Harry S.....Detroit
Gorning, Raymond P.....Detroit
Gottschalk, Fred W.....Detroit
Gould, S. Emanuel.....Eloise
Goux, R. S.....Detroit
Grace, Joseph M.....Eloise
Grain, Gerald O.....Detroit
Grajewski, Leo E.....Detroit
Gramley, William.....Detroit
Grandfield, Francis J.....New Boston
Granger, Francis L.....Detroit
Grant, Heman E.....Detroit
Grant, Lee E.....Detroit
Gratton, Henri L.....Detroit
Green, Lewis.....Detroit
Green, Louis M.....Detroit
Green, Sydney H.....Detroit
Greenberg, Jack R.....Detroit
Greenberg, Morris Z.....Detroit
Greenidge, Robert.....Detroit
Greenlee, Wm. Tate.....Detroit
Greiner, Bert A.....Detroit
Grekin, Samuel L.....Detroit
Griffith, Arthur J.....Detroit
Grimaldi, G. J.....Detroit
Grob, Otto.....Detroit
Grossman, Sol.....Detroit
Gruber, T. K.....Eloise
Guimaraes, A. S.....Dearborn
Gurdjian, E. S.....Detroit
Gutow, Benjamin R.....Detroit
Hackett, Walter L.....Detroit
Haig, D. B.....Detroit
Hale, Arthur S.....Detroit
Hall, E. Walter.....Detroit
Hall, James A. J.....Detroit
Hall, Ralph E.....Detroit
Hall, Robert J.....Detroit
Haluska, Joseph A.....Detroit
H'Amada, Norman K.....Detroit
Hamburger, A. C.....Detroit
Hamil, Brenton M.....Dearborn
Hamilton, Norman.....Detroit
Hamilton, Stewart.....Detroit
Hamilton, William.....Detroit
Hamilton, William F.....Detroit
Hammer, Edwin J.....Detroit
Hammond, A. E.....Detroit
Hammond, H. J.....Detroit
Hammond, James L.....Inkster
Hand, F. V.....Detroit
Hanna, Carl.....Detroit
Hanna, E. Howard.....Detroit
Hanna, Samuel C.....Detroit
Hansen, Frederick E.....Detroit

*Deceased March 27, 1939

Hanson, Frederick N.....Eloise
Hardy, George C.....Detroit
Harley, Louis M.....Detroit
Harm, W. B.....Detroit
Harper, Jesse T.....Detroit
Harrell, Voss.....Detroit
Harris, Harold H.....Detroit
Harris, Harold H.....Detroit
Harrison, Hugh.....Detroit
Harrison, Wesley.....Detroit
Hart, Thomas M.....Detroit
Hartgraves, Hallie.....Detroit
Hartman, F. W.....Detroit
Hartmann, W. B.....Detroit
Hartzell, John B.....Detroit
Hasley, Clyde K.....Detroit
Hasley, Daniel E.....Detroit
Hasner, R. B.....Royal Oak
Hastings, Orville J.....Detroit
Hause, Glen E.....Detroit
Hauser I. Jerome.....Detroit
Hauser, John E.....Detroit
Havers, Howard.....Detroit
Hawken, Wm. C.....Detroit
Hayes, Joseph D.....Detroit
Heath, Leonard P.....Detroit
Heath, Parker.....Detroit
Heavner, L. E.....Detroit
Hedrick, Donald W.....Detroit
Heenan, T. H.....Detroit
Heldt, Thomas J.....Detroit
Hendelman, Manuel H.....Detroit
Henderson, Harold.....Detroit
Henderson, Leslie T.....Detroit
Henderson, William E.....Detroit
Henig, Fred .....Detroit
Henrich, L. E.....Detroit
Henry, Thomas J.....Detroit
Herkimer, Dan R.....Lincoln Park
Herrold, Rose E.....Detroit
Hershey, Lynn N.....Detroit
Hewitt, H. W.....Detroit
Hewitt, Robert S.....Dearborn
Heyner, Stanley A.....Detroit
Higbee, Arthur L.....Detroit
Hileman, Lee.....Ecorse
Hilton, William E.....Detroit
Hinko, Edward N.....Plymouth
Hipp, William.....Detroit
Hirschman, L. J.....Detroit
Hochman, Morton M.....Detroit
Hodge, James B.....Detroit
Hodoski, Frank J.....Detroit
Hoff, E. C.....Detroit
Hoffman, E. S.....Detroit
Hoffman, Henry A.....Detroit
Hoffmann, Martin H.....Eloise
Hollander, A. J.....Inkster
Holmes, Alfred W.....Detroit
Holt, Henry T.....Detroit
Honhart, Fred L. .....Detroit
Hoobler, B. Raymond.....Detroit
Hookey, J. A.....Detroit
Hooper, Norman L.....Detroit
Hooper, Vernon J.....Detroit
Hoops, George B.....Detroit
Hopkins, J. E.....Detroit
Horan, Thomas.....Detroit
Horton, Reece H.....Detroit
Horwitz, John B.....Detroit
Host, Lawrence N.....Detroit
Howard, Austin Z.....Detroit
Howard, Philip J.....Detroit
Howell, Bert F.....Detroit
Howell, Robert.....Eloise
Howes, Willard Boyden.....Detroit
Howlett, Howard T.....Detroit
Hromadko, Louis.....Detroit
Hubbard, John P.....Detroit
Hudson, A. Willis.....Detroit
Hudson, J. Stewart
Grosse Pte. Village
Hudson, William A.....Detroit
Huegli, Albert G.....Detroit
Huegli, Wilfred A.....Detroit
Huff, Reginald G.....Wayne
Hughes, Albertie A.....Detroit
Hughes, Ray W.....Detroit
Hughes, Ray W.....Detroit
Hull, L. W. .....Detroit
Hunt, T. H.....Detroit
Hunt, Verne G.....Detroit
Hunter, Basil H.....Detroit
Hunter, Elmer N.....Detroit
Husband, Charles W.....Detroit
Hyde, F. W.....Detroit
Insley, Stanley W.....Detroit
Irwin, W. A.....Detroit
Isaacs, Joseph C.....Detroit
Isbey, Edward K.....Detroit
Israel, J. G.....Detroit
Ivkovich, Peter.....Detroit
Jackson, Fred D.....Detroit
Jacoby, Myron D.....Detroit
Jaeger, Grove A.....Detroit
Jaeger, Julius P.....Detroit
Jaekel, C. N.....Detroit
Jaffar, Donald J.....Detroit
Jaffe, J. L.....Detroit
Jaffe, Louis.....Detroit
Jahsman, William E.....Detroit
Jamieson, Robert C.....Detroit
Jarre, Hans A.....Detroit
Jarzembowski, F. B.....Detroit
Jarzynka, Frank J.....Dearborn
Jasion, Lawrence J.....Detroit
Jend, William J.....Detroit
Jennings, Alpheus F.....Detroit
Jennings, Robert M.....Eloise
Jentgen, Charles J.....Detroit
Jentgen, L. G.....Detroit
Jodar, E. O.....Detroit
John, Hubert R.....Detroit
Johnson, Homer L.....Detroit
Johnson, Ralph K.....Detroit
Johnson, R. M.....Eloise
Johnson, Vernon P.....Detroit
Johnson, W. H. M.....Detroit
Johnston, Charles G.....Detroit
Johnston, Everett V.....Detroit
Johnston, John L.....Detroit
Johnston, Wm. E.....Detroit
Johnstone, B. I.....Detroit
Joinville, E. V. .....Detroit
Jones, Adrian R.....Detroit
Jones, Arthur J.....Detroit
Jones, H. C.....Detroit
Jones, Roy D.....Detroit
Judd, C. Hollister.....Detroit
Kahn, William W.....Detroit
Kallet, Herbert I.....Detroit
Kallman, David.....Detroit
Kallman, Leo.....Detroit
Kallman, R. Robert.....Detroit
Kaminski, Ladislaus R.....Detroit
Kaminski, Zeno L.....Detroit
Kamperman, George A.....Detroit
Kapetansky, A. J.....Detroit
Kapetansky, Nathan J.....Detroit
Karr, Herbert S.....Detroit
Kasper, Joseph A.....Detroit
Kass, J. B.....Detroit
Kay, Harry H.....Detroit
Keane, Wm. E.....Detroit
Kehoe, Henry J.....Detroit
Kelly, Edward W.....Detroit
Kelly, Frank A.....Detroit
Kemler, Walter J.....Ecorse
Kennedy, Charles S.....Detroit
Kennedy, Lester F.....Detroit
Kennedy, Robert B.....Detroit
Kenning, John C.....Detroit
Kenyon, Fanny H.....Detroit
Kern, W. H.....Garden City
Kernkamp, Ralph.....Eloise
Kernick, M. O.....Detroit
Kersten, Armand G.....Detroit
Keshishian, Sarkis K.....Detroit
Kibzey, Ambrose T.....Detroit
Kidner, Frederick C.....Detroit
Kilroy, Frank.....Detroit
Kimball, David C.....Detroit
Kimberlin, Kenneth K.....Detroit
King, Edward D.....Detroit
King, Melbourne J.....Detroit
Kingswood, Roy C.....Detroit
Kirchner, Augustus.....Detroit
Kirker, J. G.....Detroit
Kirschbaum, Harry M.....Detroit
Klebba, Paul A.....Detroit
Klein, Louis.....Nutley, N. J.
Kleinman, S.....Detroit
Kliger, David.....Detroit
Kline, Starr L.....Detroit
Kloeppel, C. S.....Detroit
Klosowski, Joseph .....Detroit
Klote, M. D.....Detroit
Knaggs, Earl J.....Wyandotte
Knapp, Bryan S.....River Rouge
Knobloch, Edmund J.....Detroit
Knox, Ross M.....Ecorse
Koch, John C.....Detroit
Koebel, R. H.....Detroit
Koessler, George L.....Detroit
Kohn, M. E.....Detroit
Kolasa, W. B.....Detroit
Koss, Frank R.....Detroit
Kozlinski, Anthony E.....Detroit
Krebs, William T.....Detroit
Kretzschmar, C. A.....Detroit
Krieg, Earl G.....Detroit
Krieger, Harley L.....Detroit
Kritchman, M. J.....Detroit
Kroha, Lawrence.....Detroit
Krohn, Albert H.....Detroit
Krynicki, Francis X.....Detroit
Kubanek, Joseph L.....Eloise
Kullman, Harold J.....Detroit
Kurcz, J. A.....Detroit
Kwasiborski, S. A.....Wyandotte
Laberge, A. T.....Detroit
Laberge, James J.....Wyandotte
LaCore, Ivan.....Detroit
Laird, R. Lee.....Detroit
Lakoff, Charles .....Detroit
Lam, Conrad R.....Detroit
Lampman, H. H.....Detroit
Lance, Paul E.....Detroit
Landers, M. B.....Detroit
Landers, Maurice B., Jr.....Detroit
Lange, Anthony H.....Detroit
Lange, Wm. A.....Detroit
Laning, George M.....Detroit
Lansky, Mandell.....Detroit
Lapham, Fred E.....Detroit
Larson, John A.....Detroit
Larsson, Bror H.....Detroit
Lash, Michael W.....Detroit
Latham, Ruth M.....Detroit
Laub, Stanley V.....Detroit
Laupee, Edward H.....Detroit
Lauppe, F. A.....Detroit
Law, John H.....Detroit
Lawson, John W.....Detroit
Leacock, Robert C.....Detroit
Leader, L. R.....Detroit
Leaver, L. Ross.....Detroit
Leckie, George C.....Detroit
Ledwidge, Patrick L.....Detroit
Lee, Harry E.....Detroit
Leibinger, Henry R.....Detroit
Leipsitz, Louis S.....Detroit
Leiser, Rudolf.....Eloise
Lemley, Clark.....Detroit
Lemmon, Charles E.....Detroit
Lemmon, Clarence.....Detroit
Lenz, Willard R.....Detroit
Lepard, C. W.....Detroit
Lepley, Fred O.....Detroit
Leschoir, Alex W.....Grosse Pointe
L'Esperance, Simon P.....Detroit
Leszynsky, J. S.....Detroit
Leucutia, Traian .....Detroit
Levin, Michael M.....Detroit
Levin, Samuel J.....Detroit
Levine, David M.....Detroit
Levine, Sidney S.....Detroit
Levitt, Edward J.....Detroit
Levitt, Jacob.....Detroit
Levy, David J.....Detroit
Levy, Marvin B.....Detroit
Lewis, Charles T.....Detroit
Lewis, J. Hugh.....Wyandotte
Lewis, L. A.....Detroit
Libbrecht, Robert V.....Detroit
Liddicoat, A. G.....Detroit
Lieberman, B. L.....Detroit
Lightbody, James J.....Detroit
Lignell, Rudolph.....Detroit
Lilly, Charles J.....Detroit
Linton, James R.....Eloise
Lipinski, Stanley L.....Detroit
Lipschutz, Louis S.....Eloise
Livingston, George D.....Detroit
Livingston, George M.....Detroit
Lockwood, Bruce C.....Detroit
Lofstrom, James E.....Detroit
Long, Earle C.....Detroit
Loranger, C. B.....Detroit
Lorentzen, Edwin H.....Detroit
Lovas, W. S.....Detroit
Love, W. Thomas.....Detroit
Lovering, Wm. J.....Detroit
Lowrie, G. B.....Detroit
Lowrie, Wm. L., Jr.....Detroit
Luce, Henry A.....Detroit
Lutz, Earl F.....Detroit
Lynn, David H.....Detroit
Lynn, Harvey D.....Detroit
Mabee, Frank P.....Detroit
Mabley, Donald J.....Detroit
MacArthur, Robert A.....Detroit
MacCraken, Frances L.....Detroit
MacCraken, Walter H.....Detroit
MacGregor, W. W.....Detroit
Mack, Harold C.....Detroit
MacKenzie, Earle D.....Detroit
MacKenzie, Frank M.....Detroit
Mackenzie, John W.....Grosse Pointe
MacKenzie, R. D.....Detroit
Mackersie, W. G.....Detroit
MacMillan, Francis B.....Detroit
MacMullen, Frank B.....Detroit

MacPherson, K. C.....Detroit
MacQueen, Malcolm D.....Detroit
Madsen, Martha .....Detroit
Maguire, Clarence E.....Detroit
Mahlatjie, Nathaniel M.....Detroit
Mahoney, Hugh M.....Detroit
Maibauer, F. P.....Wyandotte
Mair, Harold U.....Detroit
Maire, E. D.....Grosse Pointe
Malachowski, B. T.....Detroit
Maloney, John A.....Detroit
Mancuso, Vincent S.....Detroit
Manting, J.....Detroit
Marcotte, Oliver.....Detroit
Marinus, Carleton J.....Detroit
Markoe, Rupert C. L.....Detroit
Marshall, James R.....Detroit
Martin, Edward G.....Detroit
Martin, Elbert A.....Detroit
Martin, I. Herbert.....Detroit
Martin, L. R.....Detroit
Martin, R. M.....Detroit
Martin, William C.....Detroit
Martmer, Edgar.....Grosse Pointe
Marwil, T. B.....Detroit
Mason, Percy W.....Detroit
Mason, Robert J.....Detroit
Mateer, John G.....Detroit
Mathieson, Don R.....Detroit
Matthew, Wallace R.....Dearborn
Maxwell, J. Harvey.....Detroit
May, Earl W.....Detroit
May, Frederick T., Jr.....Detroit
Mayer, E. V.....Detroit
Mayer, Willard D.....Detroit
Mayer, William L.....Detroit
Mayne, C. H.....Detroit
McAfee, F. W.....Detroit
McAlpine, Archibald D.....Detroit
McAlpine, Gordon S.....Detroit
McCausland, M. B.....Detroit
McClellan, G. L.....Detroit
McClellan, Robert J.....Detroit
McClelland, Carl C.....Detroit
McClendon, James J.....Detroit
McClintock, J. J.....Detroit
McClure, Roy D.....Detroit
McClure, Wm. R.....Detroit
McClurg, David.....Highland Park
McColl, Clarke M.....Detroit
McColl, Kenneth M.....Detroit
McCollum, E. B.....Detroit
McCord, Carey P.....Detroit
McCormick, Colin C.....Detroit
McCormick, Crawford W.....Detroit
McCullough, Lester E.....Detroit
McDonald, Allan W.....Detroit
McDonald, Angus L.....Detroit
McDonald, Donald Frazer.....Detroit
McDonald, George O.....Detroit
McDougall, B. W.....Detroit
McFayden, Hugh A.....Detroit
McGarvah, A. W.....Detroit
McGarvah, Joseph A.....Detroit
McGillicuddy, Walter E.....Detroit
McGinnis, Daniel H.....Detroit
McGraw, Arthur B.
Grosse Pointe Farms
McIntosh, W. V. .....Detroit
McKean, G. Thomas.....Detroit
McKean, Richard M.....Detroit
McKinnon, Wm. R.....Detroit
McLane, Harriett E.....Detroit
McLaughlin, Nelson.....Detroit
*McLean, Angus.....Detroit
McLean, Don W.....Detroit
McLeod, K. W. A.....Detroit
McNamara, Ronald J.....Detroit
McPhail, Malcolm.....Detroit
McPherson, R. J.....Detroit
McQuiggan, Mark R.....Detroit
McRae, Donald H.....Detroit
Meader, F. M.....Detroit
Meek, Stuart F.....Detroit
Meinecke, Helmuth A.....Detroit
Mellen, Hyman S.....Detroit
Menagh, Frank R.....Detroit
Mendelssohn, R. J.....Detroit
Mercer, R. E.....Detroit
Merkel, Charles C.
Grosse Pte. Village
Merrill, Lionel N.....Detroit
Merrill, Wm. O.....Detroit
Merriman, K. S.....Detroit
Merritt, Earl G.....Detroit
Metzger, Harry C.....Detroit
Meyers, Solomon G.....Detroit
Miley, H. H.....Detroit
Miller, Hazen L.....Detroit

*Deceased April 11, 1939.

Miller, Maurice P.....Trenton
Miller, T. H.....Detroit
Miller, Wm. Ernest.....Detroit
Mills, Clinton C.....Detroit
Miner, Stanley G.....Detroit
Minor, Edward G.....Detroit
Miral, Solomon P.....Detroit
Mishelevich, Sophie.....Detroit
Mitchell, C. Lester.....Detroit
Mitchell, Gertrude F.....Detroit
Mitchell, W. Bede.....Detroit
Moehlig, Robert C.....Detroit
Moisides, V. P.....Detroit
Moll, Clarence D.....Detroit
Molner, Joseph G.....Detroit
Mond, Edward .....Detroit
Monfort, Willard.....Detroit
Montgomery, John C.....Detroit
Moran, Frank T.....Detroit
Morand, Louis J.....Detroit
Moriarity, George.....Detroit
Morin, John B.....Detroit
Morley, James A.....Detroit
Morrill, Donald M.....Detroit
Morris, Harold L.....Detroit
Morton, David G.....Detroit
Morton, J. B.....Detroit
Morton, Wallace C.....Detroit
Mosen, Max M.....Detroit
Moss, E. B.....Detroit
Mott, Carlin P.....Detroit
Muellenhagen, Walter J.....Detroit
Munro, Fred Wm.....Detroit
Munson, F. T.....Detroit
Muntyan, Andrew.....Detroit
Murphy, D. J.....Detroit
Murphy, Frank J.....Detroit
Murphy, John M.....Detroit
Murphy, Scipio G.....Detroit
Murphy, W. M.....Detroit
Murray, George M.....Detroit
Murray, James I.....Detroit
Murray, William A.....Detroit
Musser, Fred C.....Detroit
Myers, George P.....Detroit
Myers, Gordon B.....Detroit
Nagle, John W.....Wyandotte
Naylor, Arthur E.....Detroit
Naylor, Arthur H.....Detroit
Needles, R. J.....Detroit
Neff, Irwin H.....Detroit
Nelson, Harry M.....Detroit
Nelson, Victor E.....Detroit
Neumann, Arthur J.....Detroit
Newbarr, Arthur A.....Detroit
Newman, Max Karl.....Detroit
Newton, Edward P.....Detroit
Nichamin, Samuel J.....Detroit
Nill, John B.....Detroit
Nill, William F.....Detroit
Nittis, Savas.....Detroit
Noel, William W.....Detroit
Noer, Rudolf J.....Detroit
Norconk, A. A.....Detroit
Northcross, Daisy L.....Detroit
Northrop, Arthur K.....Detroit
Norton, Charles S.....Detroit
Nosachuk, Barney.....Detroit
Novy, R. L.....Detroit
Nowicki, Joseph A.....Detroit
O'Brien, E. J.....Detroit
O'Donnell, Dayton H.....Detroit
O'Donnell, Wm. S.....Detroit
Ohmart, Galen B.....Detroit
O'Hora, James T.....Detroit
Olechowski, Leo W.....Hamtramck
Olenikoff, Alex.....Detroit
Olmstead, William R.....Detroit
Olney, H. E.....Detroit
Oman, Cyrus F.....Detroit
Oppenheim, I. M.....Detroit
Opperman, Rudolph.....Detroit
Orecklin, L.....Detroit
Organ, Fred W.....Detroit
Ormond, John K.....Detroit
O'Rourke, R. M.....Detroit
Osius, Eugene A.....Detroit
Ottaway, John P.....Detroit
Ottrock, Anton .....Detroit
Owen, Clarence I.....Detroit
Owen, Robert G.....Detroit
Owen, Samuel H. C.....Detroit
Palmer, Hayden.....Detroit
Palmer, R. Johnston.....Detroit
Palmerlee, George H.....Detroit
Pangburn, L. E.....Detroit
Panzner, Edward J.....Detroit
Parker, Walter R.....Detroit
Parr, R. W.....Detroit
Parsons, John P.....Detroit
Pawlowski, Jerome.....Detroit

Payne, Andrew K.....Detroit
Paysner, Harry A.....Detroit
Peabody, Charles Wm.....Detroit
Peacock, Lee W.....Detroit
Pearse, Harry A.....Detroit
Peirce, Howard W.....Detroit
Penberthy, G. C.....Detroit
Pequegnot, Charles F.....Detroit
Perdue, Grace M.....Detroit
Perkins, Ralph A.....Detroit
Perlis, H. L.....Detroit
Perkin, Frank S.....Detroit
Peterman, Earl A.....Detroit
Phillips, Fred W.....River Rouge
Pickard, Orlando W.....Detroit
Pierce, Frank L.....Detroit
Pierson, Merle.....Detroit
Pinckard, Karl G.....Dearborn
Pinkus, Hermann.....Detroit
Pinney, Lyman J.....Detroit
Pino, Ralph H.....Detroit
Piper, Clark C.....Detroit
Piper, Ralph R.....Detroit
Plaggemeyer, H.....Detroit
Pliskow, Harold.....Detroit
Podezwa, J. W.....Hamtramck
Pollack, John J.....Detroit
Poole, Marsh W. .....Detroit
Poos, Edgar E.....Detroit
Porretta, Anthony C.....Detroit
Porretta, F. S.....Detroit
Potts, E. A.....Detroit
Pratt, Jean P.....Detroit
Pratt, Lawrence.....Detroit
Priborsky, Benjamin H.....Detroit
Price, Alvin Edwin.....Detroit
Price, A. H.....Detroit
Proud, Robert H.....Flat Rock
Ptolemy, H. H.....Detroit
Purcell, Frank H.....Detroit
Pyle, Wynand.....Montclair, N. J.
Quennell, Willard L.....Detroit
Quigley, William.....Detroit
Quirk, Edmund J.....Detroit
Rabinovitch, Bella.....Detroit
Rahm, Lambert P.....Detroit
Raiford, Frank P.....Detroit
Rand, Morris.....Detroit
Randolph, Wilson.....Detroit
Rastello, Peter B.....Detroit
Ratigan, C. S.....Dearborn
Raynor, Harold F.....Detroit
Reberdy, George J.....Detroit
Reed, H. Walter.....Detroit
Reed, Ivor E.....Detroit
Rees, Howard C.....Detroit
Reickhoff, George G.....Detroit
Reid, Wesley G.....Detroit
Reiff, Morris V.....Detroit
Reinbolt, Charles A.....Detroit
Reinsh, Ernest R.....Detroit
Reisman, N. J.....Detroit
Rekshaw, W. R.....Detroit
Renaud, G. L.....Detroit
Rennell, Leo P.....Detroit
Renz, Russell.....Detroit
Repp, Wm. A.....Detroit
Reske, Alven.....Eloise
Reveno, William S.....Detroit
Rexford, Walton K.....Detroit
Reye, H. A.....Detroit
Reyner, C. E.....Detroit
Reynolds, Lawrence.....Detroit
Reynolds, R. P.....Detroit
Rezanka, Harold J.....Detroit
Rhoades, F. P.....Detroit
Rice, Harold B.....Detroit
Rice, Meshel.....Detroit
Richards, R. Milton.....Detroit
Richardson, Allan L.....Detroit
Richardson, Kenneth R.....Detroit
Richey, Bert R.....Detroit
Ridge, Ralph W.....Wyandotte
Ridley, Edward R.....Detroit
Rieger, John B.....Detroit
Rieger, Mary H.....Detroit
Riseborough, E. O.....Detroit
Rizzo, Frank .....Detroit
Robb, Edward L.....Detroit
Robb, Herbert F.....Belleville
Robb, J. M.....Grosse Pte. Village
Roberts, Arthur J.....Ecorse
Robertson, A. E.....Detroit
Robbins, Edward R.....Detroit
Robinson, Fred L.....Dearborn
Robinson, George W.....Detroit
Robinson, Harold A.....Detroit
Robinson, R. G.....Detroit
Robinson, William H.....Detroit
Rogers, A. Z.....Lochmoor
Rogers, James D.....Wyandotte

Rogin, James R.....Detroit
Rogoff, A. S.....Detroit
Roney, Eugene H.....Detroit
Root, Charles T.....Eckerman
Rosbolt, Oscar P.....Detroit
Rosen, Robert.....Detroit
Rosenman, J. D.....Detroit
Rosenthal, M. J.....Detroit
Ross, D. G.....Detroit
Rotarius, E. M.....Detroit
Roth, Theodore I.....Detroit
Rothman, Emil D.....Detroit
Rowda, Michael S.....Detroit
Rowell, Wilfred J.....Detroit
Rubright, LeRoy W.....Detroit
Rueger, Ralph C.....Detroit
Rupp, Jacob R.....Detroit
Rupprecht, Emil F.....Detroit
Russell, John C.....Detroit
Ryan, Chas. F.....Detroit
Ryan, W. D.....Detroit
Rydzewski, Joseph B.....Detroit
Ryerson, Frank L.....Detroit
Sachs, Herman K.....Detroit
Sachs, Ralph Robert.....Detroit
Sack, A. G.....Detroit
Sa'di, Lutfi M.....Detroit
Sadowski, Roman.....Detroit
Sage, Edward O.....Dearborn
Sage, Thomas.....Detroit
Sager, E. L.....Detroit
St. Louis, R. J.....Detroit
Salchow, Paul T.....Detroit
Salowich, John N.....Detroit
Salisbury, H. W.....Dearborn
Sander, I. W.....Detroit
Sanders, Alex W.....Detroit
Sanderson, James H.....Detroit
Sanderson, Suzanne.....Detroit
Sanford, Hawley S.....Detroit
Sands, G. E.....Detroit
Sargent, William R.....Detroit
Sauter, Simon H.....Detroit
Sawyer, Harold F.....Detroit
Scarney, Herman D.....Detroit
Schaefer, Robert L.....Detroit
Schembeck, I. S.....Detroit
Schenden, A. J.....Melvindale
Schinagel, Geza.....Detroit
Schlafer, Nathan H.....Detroit
Schmidt, Milton R.....Trenton
Schneck, Robert J.....Detroit
Schneider, Curt P.....Detroit
Schneider, Kenneth....Taunton, Mass.
Schoenfield, Gilbert D.....Detroit
Schooten, Sarah S.....Detroit
Schreiber, Frederick.....Detroit
Schroeder, Carlisle F.....Detroit
Schulte, Carl H.....Detroit
Schultz, Ernest C.....Detroit
Schultz, Robert F.....Detroit
Schwartz, H. Allen.....Detroit
Schwartz, Louis A.....Detroit
Schwartz, Oscar D.....Detroit
Schweigert, C. F.....Detroit
Scott, J. W.....Detroit
Scott, R. J.....Detroit
Scott, William J.....Detroit
Seeley, James B.....Dearborn
Seeley, Ward F.....Detroit
Segar, Lawrence F.....Detroit
Seibert, Alvin H.....Detroit
Seiferlein, Archie L.....Detroit
Seliady, Joseph E.....Northville
Sellers, Graham.....Detroit
Selling Lowell.....Detroit
Selman, J. H.....Detroit
Seltzer, Sol Norris.....Detroit
Sewell, George.....Detroit
Seymour, William J.....Detroit
Shafarman, Eugene.....Detroit
Shaffer, Loren W.....Grosse Pte. Park
Shafter, Royce R.....Detroit
Shankwiler, Reed A.....Detroit
Shapiro, Oscar U.....Detroit
Sharrer, Charles H.....Detroit
Shaw, Robert G.....Detroit
Shebasta, Bessey Heald.....Eloise
Shebasta, Emil.....Detroit
Sheldon, John A.....Detroit
Shellhamer, Claire.....Detroit
Shelton, C. F.....Detroit
Sherman, B. B.....Detroit
Sherman, Wm. L.....Detroit
Sherrin, Edgar R.....Detroit
Sherwood, DeWitt L.....Detroit
Shields, Wm. L.....Detroit
Shilkovsky, Hirsh H.....Detroit
Shipton, W. Harvey.....Detroit
Shlain, Benjamin.....Detroit
Shore, O. J.....Detroit
Shotwell, Carlos W.....Detroit
Shrom, Howard K.....Detroit
Shulak, Irving B.....Detroit
Shurly, Burt R.....Detroit
Siddall, Roger S.....Detroit
Siefert, John L.....Detroit
Sill, Henry W.....Detroit
Silvarman, I. Z.....Detroit
Silverman, M. M.....Detroit
Simpson, Clarence E.....Detroit
Simpson, H. Lee.....Detroit
Sippola, George W.....Detroit
Sisson, John M.....Detroit
Skinner, W. Clare.....Detroit
Skolnick, Max H.....Detroit
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Smeck, Arthur R.....Detroit
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Smith, Henry L.....Detroit
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Smith, Roy S.....Detroit
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Zimmerman, R. L.....Detroit
Zinn, George H.....Detroit
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Zolliker, Carl R.....Detroit

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Brooks, G. W.....Tustin
Carrow, J. F.....Marion
Gruber, John F.....Cadillac
Hager, Ralph.....Manton
Holm, Augustus.....Leroy
Holm, Benton.....Cadillac
Hoverter, J. W.....Evart
Laughbaum, T. R..... Lake City
McCall, James H. ..... Lake City
McManus, Edwin.....Mesick
Masselink, H. J.....McBain
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Moore, Sair C.....Cadillac
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OF THE
Michigan State Medical Society

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MAY, 1939

"Every man owes some of his time to the upbuilding of the profession to which he belongs."

—THEODORE ROOSEVELT.

EDITORIAL

AN OPEN LETTER TO A SENATOR

MY dear Senator:

In your legislative capacity, you are called upon from time to time to pass upon measures that affect the health as well as the general welfare of the people of the state. Sometimes the issue is clouded by the apparent claims of the various healers (and in this term is included the medical profession), who apparently are seeking a monopoly of the field of caring for the sick for themselves. There are no "schools" of healing which are entitled to a hearing *per se*. Even the doctors are not entitled to consideration, as doctors. However, what is known as scientific medicine taught in tax-supported colleges and universities is entitled to the only consideration. No so-called pathy, such as osteopathy, chiropractic, naturopathy, is taught in any tax-supported school in the English-speaking world. If one wishes to become an osteopath, a chiropractor or a naturopath, he must attend a proprietary school. He cannot obtain the required training in any university or college that is supported by taxation, such as the University of Michigan or the municipal university of Wayne. This means that the citizens, by and large, in a corporate capacity, do not recognize the training given in institutions which teach osteopathy, chiropractic, naturopathy or any of the so-called cults.

Up to about a quarter of a century ago, there were 160 medical schools in the United States, about half of which were proprietary schools, depending upon fees of students for their maintenance. The rapid growth of medicine and kindred sciences such as physics, chemistry and other laboratory sciences, rendered it impossible for the unsupported proprietary medical schools to continue; as a result all of them have ceased to exist as such. The expense of medical education has become so heavy that it requires not only students' fees, which have been very materially advanced, but also tax support in addition. This has meant a curtailment of the number of students who have been admitted to the study of medicine, and promotion of a higher standard of premedical education as well. This is all in the interests of the people and not necessarily in the interests of the doctor, who has had to meet these requirements not only in cash outlay but in years of preparation as well.

Is it not reasonable, therefore, when your honorable body formulates legislation in matters pertaining to public and private health, that a doctor who has been educated in tax-supported and publicly recognized medical schools of the state (any state) should be considered for position of director of medical welfare or other positions requiring specialized medical knowledge and training?

Scientific medicine at times may be imperfectly practiced, and, despite the fact that through it many diseases such as smallpox,

typhoid, diphtheria, malaria and a number of others, have been conquered, it is at times disappointing. We admit it. In a hundred or five hundred years from now, there will be still problems that medicine will probably not have solved. You, however, realize the fact that any solution is in the line of efforts that are now being applied. There is no limit to the curative agents that scientific medicine may employ, from rest in bed to the administration of physical agents and of drugs as well. Osteopathy, which has possibly the nearest (though not very near) claim to a system of healing, has realized its own inefficiency. Early it has sought and obtained the legal right to use narcotic drugs, and, without any legal right to do so, some osteopaths have ceased to rely upon purely physical methods of manipulation of bones and joints and are using drugs, which practice is outside of their training entirely.

You have been selected Senator because your constituents look upon you as a man of ability and judgment and they look to you to give time and effort to making wise selections which they themselves in the mass as voters are not in a position to do. We repeat: doctors of medicine as such, osteopaths, chiropractors, or naturopaths are not entitled to consideration for themselves. There is an old Latin saying, *Bonus populi suprema lex*, the good of the whole people should be the supreme law. The state has recognized scientific medicine, not doctors *per se*. Therefore, scientific medicine as personified by those who have met the conditions and standards you have laid down in tax-supported medical colleges is commended to your consideration. The desire to be fair disposes many of you to consider the various so-called schools that are clamoring for recognition. The public good, however, demands that you consider only the service that scientific medicine is capable of rendering to the people at large.

MORITURUS TE SALUTO

THE following letter is presented as a remarkable reaction of a sufferer from cancer. It is singularly appropriate at a time when the attention of the medical profession is turned toward this scourge The writer of the letter is a comparatively young man, thirty-nine years of age, by profession an electrical engineer. Feeling that he had something to say that the profession should know, the letter was addressed to the American Association for the Study of Neoplastic Diseases, Hotel Statler, Detroit. It was forwarded to Dr. Rollin H. Stevens of Detroit, on the occasion of a visit to Detroit of Dr. Clarence Cook Little, who was entertained at a noon luncheon at the Detroit Athletic Club. Dr. Little is the director of Roscoe B. Jackson Memorial Laboratory and Managing Director of the American Society for the Control of Cancer. The letter was read by Dr. Little to a group of forty guests, physicians and surgeons, who were interested in the subject of cancer control. It is here presented as written.

"I wish that I, as a layman, were permitted to address your meeting for just fifteen minutes. I believe I have a message which should be brought personally to each and every physician and surgeon. Such a message can be so much better stated orally and in person, but I will attempt to present it to you abbreviated in this letter and ask that you forward it to your members and to the profession.

"Two years ago I was operated on for carcinoma of the pelvic colon, resection was not possible, and I have a permanent colostomy. The operation was a beautiful piece of work. I have never had the slightest discomfort because of it, but there are now, even after talking proper x-ray therapy as a preventive measure, more than one definite recurrence. The worst of these is in the liver. Now, I feel that everything possible has been done for me and I am reconciled to my fate, but I believe that my experience should be called to the attention of others who will be called upon to make similar diagnoses.

"My experience has led me to believe that you of the medical profession are more afraid of cancer than the layman. You are afraid to diagnose perfectly clean-cut symptoms of cancer. You will experiment around with various treatments until as a last resort the patient goes elsewhere, only to find that if it had been properly diagnosed, the surgery would have been simple and the cure inevitable. In my own case, at the first indication of trouble I went to my physician. The symptoms I learned later were exactly those of carcinoma, but also of colitis. After four months of treatment for colitis, during which time I steadily lost ground, I went to a clinic in a small Detroit hospital. There I was given the same diagnosis with the same result. I went to a physician in a nearby city and the same treatment was specified. Finally, ten months after the first 'exposure' to diagnosis, I was taken to a hospital in Chicago, where I was given every possible test until, as a last resort, I was taken to the x-ray department, and there in less than two minutes the lesion was shown on the fluoroscope. It is true that the lesion had developed considerably—so much so, in fact, that no one concerned with my case was satisfied with the result or had any hope for a cure.

"However, this is what I am driving at—all of these physicians, to my personal knowledge, this clinic, this large hospital, all had had similar cases, all had had in the end to come to the diagnosis of cancer. Oh, I know you can say that mistakes are made the other way too, but they are not frequent,

and are preferable to letting any lesion progress to where the patient may expect only a short life after the trouble of the operation.

"My message to you of the medical fraternity is *—do not hesitate to make the worst diagnosis first. Say the bad news;** then, if desirable, attempt to disprove it, but under no circumstances are you justified in trying to get the layman to report his symptoms early only to be stalled along in the diagnosis until an inoperable lesion has developed. All of the efforts to educate the layman are commendable, but much remains to be done to educate the physician to recognize the symptoms and to not hesitate in so diagnosing them.

"I would not consider that the above, coming from one man, should hold too much weight, except that I personally have investigated half a dozen or more different cases and find that in all those cases a somewhat similar history may be reported. You as physicians will prescribe a tonic or digestive for a budding case of carcinoma of colon, you will ream out the urinal canal when the prostate is already affected, and you will let a lump in a woman's breast develop to where something has to be done, and that too late.

"This may sound like a very severe criticism of a noble profession—a profession I have the utmost respect for. But I believe it to be justified, and that you physicians can take it from one who has but a few months more in which to try to make his experience help some other victim of this messenger of the grim reaper."

This is wholesome advice. Of course, those who have practiced medicine for a number of years have encountered instances in which patients, even when informed of their condition beyond a doubt, refuse to follow the advice given. Others, fearing the worst, refrain from consulting their physicians, who, to them, are a symbol of despair, as well as hope, until successful treatment of any kind is out of the question. Most physicians feel that the doctor should be very sure of his diagnosis before he pronounces a malady to be cancer.

A year or so ago, this JOURNAL printed a series of articles on the general subject of being prepared for the cancer patient. There are many of us who are not prepared personally to render the necessary treatment, which is either surgery or radiotherapy. It is our duty, however, to see that the patient is recommended to some one who can render adequate service; not only this, but to follow him up to see that he avails himself of the opportunity afforded. No suspicious lesion should be allowed to get away from the physician.

The writer of the letter is of the opinion that it would be much better to call the lesion cancer, and then, on further study, to find out that one is mistaken, than to call it something else, probably with equally good reason at the time, and find later that the lesion were malignant. This is a matter of opinion. One must follow his best light. The writer is correct in his assertion that the layman has not the same fear of cancer that the physician has. This, of course, is due to the fact that the physician sees more of malignant diseases and their inevitable end-results where not given early and adequate attention. The letter, however, is presented as a *bona fide* contribution of one who is resigned to his fate, and whose outlook is philosophical.

*Italics ours.

TO THE CHIEF, FAREWELL

DR. ANGUS McLEAN, who died in Detroit on April 11, was one of the outstanding surgeons of Detroit and Michigan for nearly half a century. He might properly be called the doctor's surgeon; so widely and favorably known were his skill as diagnostician and operator, that he was called by members of the medical profession to minister to themselves and their families. During the early part of the present century and for many years, his referred practice was very large; it included patients sent to him from all over Michigan and Western Ontario.

Not only was Dr. McLean a skillful surgeon, he was also an excellent teacher and lecturer. Many of the older graduates of the Detroit College of Medicine will recall his lectures in surgical anatomy which he gave with great clarity in a somewhat highly pitched voice. His clinical discussions bespoke a clear understanding of the subject. Dr. McLean always had an understudy or two in his office, for he was a friend of the young man. To them he was the chief. All of these erstwhile assistants have made a success of their private practice.

Dr. McLean was well disposed towards everyone. He was an extrovert—an optimist in a real sense, gifted with an unusual appreciation of humor. It might be said of him that "he was a fellow of infinite jest, of most excellent fancy." In fact, one might continue and speak of his gibes, his gambols, his songs, his bursts of merriment that were wont to set the table in a roar. He was distinguished in appearance with a well poised head, with hair that turned to gray as the years advanced; however, de-

spite his nearly four score years, no one looked upon him as an old man. His unique personality stood out in any group of which he was a member. We have mentioned his referred practice; his large personal following almost to his later years was testimony of his splendid services to mankind.

To this public spirited citizen, soldier, master surgeon, friend to man, what better inscription than that Miltonic verse:

Nothing is here for tears, nothing to wail
Or knock the breast; no weakness, no contempt,
Dispraise, or blame; nothing but well and fair,
And what may quiet us in a death so noble.

WILLIAM H. HAUGHEY

WHEN one has reached the age when he and others of his generation have either reduced their hours of labor or have retired from practice, memory of their former activities fades, and the younger generation hardly realizes what is due these pioneers of medical practice: their endurance, foresight, faith in the progress of medicine, and loyalty in their acceptance of positions of trust. Among those pioneers of the horse and buggy days was Dr. William H. Haughey.

His industrial and railroad work brought him early to the branch of surgery, especially pelvic and abdominal. He is credited with having performed the first appendectomy in the history of Battle Creek and to have reported to the Calhoun County Medical Society in 1896 a new suture, soon to be known as the Haughey Suture, a great advance before the time of the buried suture.

In 1902 the State Medical Society was re-organized, based on County representation and division into Councilor Districts, and it was here in his work as a member and Secretary of the Council that his strong personality and executive ability were shown over the nine years of service. The present high status of the State Medical Society is due largely to the unselfish devotion of these members: the accomplishment of the purpose of making Michigan a leader in the galaxy of States, which forms the American Medical Association.

In all these various activities he did not neglect local interest. He was elected to membership in the Calhoun County Medical Society in 1888, which membership he still enjoyed at the time of his death. His counsel and aid brought it through many a difficulty, especially through the strenuous days of 1893, when it voted to disband. Only through Dr. Haughey's efforts did existence continue; he became its Secretary, serving for nine years.

He helped to organize the Nichols Memorial Hospital Training School for nurses and served for more than thirty years on the executive staff of the hospital. Through his efforts the St. Vincent DePaul Society, a welfare organization, was organized in Battle Creek. He served as President for thirty years, and was especially active during the last ten years.

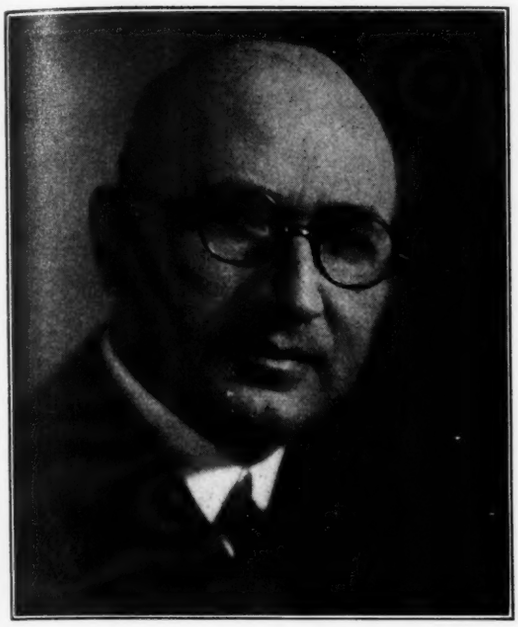
A generation ago the family physician was the family's trusted counselor, not only in health and sickness, but in its daily affairs. Held together by mutual confidence, such personal relationship existed throughout the years. That family responsibility Dr. Haughey enjoyed to the fullest extent during his long active medical career.

To Dr. Wilfrid Haughey, his son, and to the other members of the family a deep sympathy is extended. The State mourns its loss.

ANDREW P. BIDDLE

Man is a tool-using animal. Thus did Carlyle define the *genus homo*. No other calling demands of its devotees the skill in the use of the eye, the ear, the sense of touch that medicine demands of the doctor. The tool is an extension of the hand or the eye or ear with a specialized end in view. To achieve the highest, the whole man must be educated. The lawyer, the clergyman, the merchant or the industrialist may succeed with the clumsiest hands, or with the wholly untrained eye and ear. True, medicine is an art as well as a science. The doctor with only the accumulated knowledge of his profession, however, would be a sorrowful object. He must be trained to observe, to use his special senses and his hands as well—hence he becomes a tool-using animal in the broadest sense. Of course, he is much more. Microscopes, stethoscopes, scalpels and artery forceps, and other things, as well as chemical and physical methods of examination and study are his tools.

MICHIGAN DOCTORS HONORED



DR. JAMES D. BRUCE

DR. HENRY R. CARSTENS

Michigan has been especially honored this year by the American College of Physicians in recognition of two of the members of the Michigan State Medical Society. Dr. James D. Bruce, vice president of the University of Michigan and director of the department of postgraduate medical education, has been made president of the College of Physicians, and Dr. Henry R. Carstens of Detroit has been made a member of the Board of Directors. Dr. Bruce's efforts in the promotion of postgraduate medical education, which have been so effective in the State of Michigan, have won national recognition. His pioneer work has borne fruit not only in this state, but in many other states throughout the Union. Dr. Bruce is to be congratulated on his election. Dr. Henry Carstens, president of the Wayne County Medical Society, and for a number of years member of the executive committee of the Michigan State Medical Society, will continue to contribute in an executive way to the American College of Physicians.

PHYSICIANS AS ARTISTS

"From time immemorial, medicine and art have been closely associated. . . . The eye that so quickly and accurately evaluates the gradations in color and texture between normal and pathologic tissue coördinates the hand that wields the painter's brush. The man who chooses medicine as his life's work is largely motivated by a love for his fellow man, else he would select a vocation offering greater monetary reward. From the beginning, he is trained to exercise his powers of observation, and in time develops imagination, sympathy, understanding, philosophy and reverence, all of which are the very essence of art. Moreover, he deals with that most exquisite form of divine art and beauty, the human body.

"At the least, every physician is able to develop a sensitiveness to and an appreciation for fine art. He can also cultivate a hobby which, if not one of the fine arts, is in the class of 'work by the side of work.' Dr. Charles A. Dana, who has always stressed the value of cultural medicine, has advised: 'Be a collector, for example, of stamps or automobiles, or old books, or neckties or pins; or find diversion in some collateral branch of science; the lore of birds, of fishing and shooting. Make a garden or cultivate shrubs and flowers. These kinds of activities will make your life happier and your professional character more attractive and effective.'"—quoted from *Parergon,* published by Mead Johnson & Company, Evansville, Ind.

The Business Side of Medicine

WILLS
Their Importance and Their Preparation

By Henry C. Black and Allison E. Skaggs

ALTHOUGH few of us will dispute the importance of making a will, a surprising number of people either have never made one or have not brought up to date one made years ago. It is one of those things which we all admit should be done, and often fail to do. Lack of a will may not only dispose of your property in unjust proportions to unintended heirs, but may also allow much of it to be dissipated through inept liquidation.

The importance of a will varies of course with the circumstances. A married man, for example, survived by a wife and two children, might propose to distribute his estate exactly as the law provides, i.e. in Michigan one-third to each; yet a man with no children might have altogether different plans for the distribution of his property than the state law would make mandatory in the event he died without a will. Also when small children are involved, he might much prefer to have his wife inherit his property and support his children with it, rather than trust to the Probate Court to appoint a guardian for them, and require the wife, if so appointed, to separate their funds from hers. The possible situations are so varied that almost any kind of a problem could arise, the solution of which should as far as possible be left to the parent, rather than to a county officer, no matter how intelligent, or how understanding.

Several situations in our experience come to mind in this connection. For example a young doctor died a few years ago without a will, leaving a wife and small child, and a life insurance policy payable to his estate. The policy was taken out prior to his marriage, and he "hadn't gotten around" to change the beneficiary. Because there was no will, it was necessary for the court to appoint a guardian to receive the child's interest, and because the deceased had married against his father's wishes, an attempt was made to prove to the court that the widow was not the proper person to be appointed. A long court battle resulted in which a considerable amount of the money was spent in court costs and attorney fees, and although the money was finally given to the widow for the support of the child, a will properly executed would have prevented this problem as well as allowing an orderly liquidation of his practice, which, of course, was impossible under the circumstances.

It should not be necessary to cite very many illustrations to emphasize the importance of a will. Many doctors think their entire estate is in life insurance, and a will is therefore unnecessary, yet the outstanding accounts receivable at the time of the doctor's death very often amount to a considerable part of the estate, and if handled properly can greatly assist in the support of those who survive. These accounts are just as much part of an estate as would be securities, bank accounts, etc.

Granting then the *importance* of making a will, let us discuss its preparation. As a doctor said to us recently after admitting a substantial estate, "What do you do to make a will—how do you go about it?"

Unfortunately there are several fairly common errors made by doctors when it comes to drawing a will. Possibly a friend, not an attorney, offers to do it for him without cost, as a favor. We have seen altogether too many attempts by well meaning yet incompetent people to draw wills. There is just one person who is competent legally to put in writing your wishes in this matter and that is the best attorney you know.

Another common error often made is expecting this attorney to prepare such a document without having all of the pertinent facts. No one should attempt to designate who is to receive his estate without knowing what makes up that estate, and what problems the executor of the will might encounter in the administration of it.

The discussions to follow will attempt to

(Continued on page 437)

President's Page

SPRINGTIME

Springtime is with us again. Spring with all its promises and cheer. Nature's forces are at work and all take new life and inspiration.

When Autumn rolls around, the harvest depends upon the cultivation and supervision that has been given during the developmental period.

Medically we are in the Springtime of many social changes. By legislation and by other means seeds are being planted. Some are good seeds, others are tares. Some will fall on good ground, other on stony ways. The best of plants needs careful supervision.

Mature judgment, an eye to the harvest, the sunshine of optimism and the careful pruning of adventitious buds are our tools of cultivation.

There must be no let-up in our labors. The workmen in the vineyard must labor unceasingly that the harvest meet with expectations.

Henry A. Luce

President, Michigan State Medical Society.

Department of Economics

L. FERNALD FOSTER, M.D., Secretary

EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of April 16, 1939

Highlights:

1. **MSMS opposition to Wagner Bill (S. 1620) forwarded to Congressmen.**
2. **Amendments to Medical Section of Michigan Welfare Bill Proposed.**
3. **Executive Committee does not favor transfer of administration of Afflicted Child from Crippled Children Commission to Welfare Departments.**
4. **Progress on Michigan voluntary group medical care reported.**
5. **Michigan's Delegates to AMA urged to work for Public Relations Committee in AMA.**
6. **Albert H. Miller, M.D., Gladstone, chosen Councilor of 12th District.**
7. **Advisory Committee to Nurses Board nominated.**

1. *Roll Call.*—The meeting was called to order at 3:10 P. M., in the Olds Hotel, Lansing. The minutes of the meeting of March 19 were read and approved, motion of Drs. Riley-Carstens. Carried unanimously.

2. *"Routine Laboratory Service."*—The agreement between the MSMS and the Michigan Hospital Association re administration of anesthesia under the contracts of the Michigan Society for Group Hospitalization was discussed with Dr. Reuben Maurits of Grand Rapids, with particular reference to the desires of the Michigan anesthesia group. The matter of the protocol and subsequent agreement was explained to Dr. Maurits, and fully clarified.

Letter from the Michigan Hospital Association re "routine laboratory service" was read.

3. *Financial Report.*—This was presented, and studied by the members of the Executive Committee. Bills Payable for the month were approved on motion of Drs. Brunk-Moore. The bond report was presented by Wm. A. Hyland, Chairman of the special Bond Committee, and approved, with a vote of thanks to Dr. Hyland.

The Joint Committee on Health Education: Dr. Corbus requested transfer of the budgetary allowance of $500 to the Joint Committee. Motion of Drs. Carstens-Moore that the Secretary be instructed to make $500 authorized contribution to the Joint Committee at this time. Carried unanimously. Dr. Corbus outlined the activities of the Joint Committee, especially the visual education project.

Annual Meeting: Question re expenses of entertainment at the MSMS annual meeting resulted in request to the Secretary that he advise the Kent County Medical Society and the Wayne County Medical Society that the Michigan State Medical Society will assume the obligation of expenses for entertaining the House of Delegates on the Monday evenings of the annual MSMS meetings.

4. *Wagner Bill (S. 1620).*—President Luce reportend that the letter which had been approved by the Executive Committee of the Council to go to the Senators and Representatives in Washington, D. C., had also received the approval of Dr. E. H. Cary, Chairman of the A.M.A. Legislative Committee, and that the letters are now being sent out by the M.S.M.S. Executive office. He also outlined the special White House Conference on Child Welfare called in Washington, D. C., for April 26.

Committee Reports:

5. *Legislative Committee reports (meetings of March 21 and April 16).*—Chairman Miller presented these reports, including the recommendation that the MSMS approve the principle of the following amendment to the Michigan Welfare Bill, H. B. 209, Section 57-K, line 42: "The County Board shall appoint a properly qualified and licensed Doctor of Medicine as the head thereof who shall devote the amount of time necessary to carry out the provisions of this act, and whose salary shall be fixed by the county welfare board, subject to the approval of the county board of supervisors, and an advisory committee consisting of one doctor nominated by the county medical society, one dentist nominated by the district dental society, and one pharmacist nominated by the district pharmaceutical society, to advise as to standards and methods for the administration of medical care and to assist in auditing and reviewing bills for medical care."

The recommendation of the Legislative Committee re the afflicted child administration was also approved: that the M.S.M.S. transmit a letter to the House of Representatives' Ways and Means Committee and also to the Committee on Social Aid & Welfare, that the M.S.M.S. does not favor the transfer of the administration of the afflicted child to the welfare commission at the present time (reasons to be listed in letter to committees), and also that the M.S.M.S. is opposed to the allocation of monies to the various counties, based on past experience.

Chairman Urmston outlined activities re the pathological bill (S. B. 304).

Motion of Drs. Moore-Carstens that the Legislative Committee report and recommendations be approved. Carried unanimously.

Chairman Miller's report on the present status of the voluntary group medical care bill (H. B. 215) resulted in President Luce's recommendation that the names of the incorporators and the board of directors should be chosen promptly. The Secretary was instructed to request the Committee on Distribution of Medical Care for suggestions re the incorporators and the board of directors; also full information on the committee's plan of autonomous action by the county medical society in voluntary group medical care plans; and other full data, to be presented to the Executive Committee May 1—motion of Drs. Moore-Riley and carried unanimously.

The minutes of the Committee on Distribution of Medical Care (meeting of April 2, 1939) were approved on motion of Drs. Riley-Carstens. Carried unanimously.

Maternal Health Committee. The minutes of the meeting of March 22 were approved, on motion of Drs. Brunk-Carstens. Carried unanimously.

Medico-Legal Committee. The minutes of the meeting of March 28 were approved.

6. *Taxation.*—Brief prepared on this subject was read and approved and ordered sent to the Income Tax Department.

7. (a) *U. P. Secretaries Conference* of March 26: Report was given by Secy. Foster; the Secretary also gave a report on plans for the U. P. Society meeting in Escanaba on August 23-24. (b) Dr. Foster gave a progress report on the 1939 M.S.M.S. Convention, including selection of E. J. McCormick, M.D., for address of Thursday evening, Sept. 21, on "Americanism." The Secretary stated that he and Mr. Burns would meet with the Grand Rapids Local Committee on Arrangements on April 23.

8. *Affiliate Fellowship* in A.M.A. for R. W. Gillman, M.D., Detroit, was recommended on motion of Drs. Carstens-Brunk.

9. *A.M.A. Meeting in Detroit.*—President Luce brought up the request of the Detroit Convention Bureau that the A.M.A. be urged to come to Detroit for 1942. Inasmuch as the 1941 A.M.A. convention will be in Cleveland, the Executive Committee felt that there would be little chance of inducing the A.M.A. to meet in Detroit in 1942, but approved an invitation to the A.M.A. to meet in Detroit in 1943, or 1945, and instructed the A.M.A. Delegates from the M.S.M.S. to work toward this end.

10. *Committee on Public Relations, A.M.A.*—President Luce requested instructions to the M.S.M.S. Delegates to the A.M.A. re a committee on Public Relations for the A.M.A. Motion of Drs. Riley-Moore that the M.S.M.S. Delegates to A.M.A. be instructed to work vigorously for the adoption of such a committee in the A.M.A., which is urgently needed at this time.

11. *Refugee Children.*—President Luce presented a letter requesting the use of his name on the stationery of the committee working to aid refugee children. Motion of Drs. Riley-Moore that President Luce be authorized to allow his name to be used in this matter. Motion carried.

12. *Councilor for 12th District.*—A successor to C. D. Hart, M.D., deceased, was nominated by President Luce: Dr. Albert H. Miller of Gladstone. Motion of Dr. Carstens seconded by Drs. Moore and Brunk that the Executive Committee of the Council approve President Luce's appointment of Dr. Miller as Councilor of the 12th District. Carried unanimously.

13. *Maternal Health League of Michigan.*—A communication to President Luce from this League was read and on motion of Drs. Moore-Carstens referred to the Committee on Maternal Health of the M.S.M.S. for study and report back to the Executive Committee of the Council with recommendations. Carried unanimously.

14. *Resolutions on the deaths* of Councilor C. D. Hart, M.D., of Wm. Haughey, M.D., and of Angus McLean, M.D., were approved. Motion of Drs. Moore-Carstens and carried unanimously.

15. *"Hospital Audit Bureau."*—This finance plan was discussed. In view of the fact that this is strictly a private enterprise and that the Auditor General does not object to it, motion was made by Drs. Brunk-Riley that the previous action of the Executive Committee of the Council be rescinded, and that this information be placed in the Secretary's Letter. Carried unanimously.

16. *Advisory Committee to Nurses.*—The request of the Michigan State Nurses Association for a list of 7 physicians as nominees for the Advisory Committee in connection with the new Nurses Law, was read. Motion of Drs. Brunk-Moore that approval be given to the following list: Ruth Herrick, M.D., Grand Rapids; Lloyd Harvie, M.D., Saginaw; Shattuck W. Hartwell, M.D., Muskegon; R. C. Perkins, M.D., Bay City; C. G. Clippert, M.D., Grayling; Wm. N. Braley, M.D., Detroit; Ellery A. Oakes, M.D., Manistee. Motion carried unanimously.

17. *Labor Board's New Rule 15.*—A letter from Dr. E. S. Parmenter of Alpena re new Rule 15 was presented. It was felt that all insurance companies should be requested to eliminate special reports and sworn statements (as most insurance companies are doing); but if the insurance company fails to do so, it should be billed not only for the examination but for the notary fee.

18. The Secretary presented a suggested name for the revamped Northwest Regional Conference: "National Conference on Medical Service."

This proposed name was approved by the Executive Committee of the Council.

19. *Adjournment.*—The meeting was adjourned at 8:30 p. m. and the Chair thanked all for their attendance and helpful advice.

COUNCIL AND COMMITTEE MEETINGS

1. Sunday, April 2, 1939—Committee on Distribution of Medical Care—Hotel Statler, Detroit—2:00 p. m.

2. Sunday, April 16, 1939—Preventive Medicine Committee—State Health Laboratories, Lansing—10:00 a. m.

3. Sunday, April 16, 1939—Advisory Committee on Syphilis Control—State Health Laboratories, Lansing—10:00 a. m.

4. Sunday, April 16, 1939—Advisory Committee on Tuberculosis Control—State Health Laboratories, Lansing—10:00 a. m.

5. Sunday, April 16, 1939—Legislative Committee —Hotel Olds, Lansing—11:30 a. m.

6. Sunday, April 16, 1939—Executive Committee of The Council—Hotel Olds, Lansing—2:00 p. m.

7. Wednesday, April 26, 1939—Committee on Distribution of Medical Care—Hotel Statler, Detroit—2:00 p. m.

8. Sunday, May 7, 1939—Executive Committee of The Council—Hotel Statler, Detroit—12:00 noon.

WILLS

(Continued from page 434)

point out just how the estate may be evaluated, what part the assets of the practice play in the estate and the possibility of determining some idea of the probable value of the uncollected accounts receivable. From these suggestions it will be our hope that the reader who has not already done so will take the necessary steps to acquaint himself with just what property he owns, and have a will drawn now.

WOMAN'S AUXILIARY

President—Mrs. P. R. Urmston, 1862 McKinley Avenue, Bay City, Michigan
Sec.-Treas.—Mrs. R. E. Scrafford, 2210 McKinley Ave., Bay City, Michigan
Press—Mrs. J. W. Page, 119 N. Wisner Street, Jackson, Michigan

Bay County

The officers of the Auxiliary of the Bay County Medical Society elected March 8, 1939, at a dinner meeting held at the Bay City Country Club, are as follows: President, Mrs. A. D. Allen; president-elect, Mrs. W. R. Ballard; vice president, Mrs. J. W. Gustin; recording secretary, Mrs. C. W. Reuter; treasurer, Mrs. H. M. Gale; corresponding secretary, Mrs. J. N. Asline.

There were fifteen members present at the meeting.

Mrs. R. E. Scrafford, retiring president, opened the meeting and turned the presidential duties over to Mrs. Allen after the election. Plans for the coming year were discussed, after which the meeting adjourned.

Calhoun County

The Auxiliary of the Calhoun County Medical Society met Tuesday, March 7, at the Nurses Lodge of Community Hospital for a day of sewing for the hospital. Twenty members were present, and one hundred seventy-five garments were completed.

A special guest for luncheon was Miss Morgan, the newly appointed nursing supervisor.

A business meeting followed, and plans were made for the April meeting with Mrs. R. A. Stiefel as hostess.

An invitation to visit the Society either in April or May was sent to the State President and Secretary.

Jackson County

The Women's Auxiliary met at the home of Mrs. Harold Hurley, Tuesday evening, March 21, for a social evening. Mrs. Horace Porter, chairman, and committee composed of Mesdames John Van Schoick, Corwin Clark, John Smith, Courtland Sheppler, and Frank Gibson served the dinner.

A short business meeting was held, Mrs. R. H. Alter presiding. Routine reports were read, and the following members were named for the nominating committee: Mesdames John Smith, chairman, W. L. Finton, Cecil Corley, and Thomas Hackett.

The remainder of the evening was spent in playing bridge and Michigan rum, the prizes being awarded to Mesdames John Ludwick, and Barry Greenbaum.

* * *

Kalamazoo

The March meeting of the Auxiliary to the Kalamazoo Academy of Medicine met at the home of Mrs. W. G. Hoebeke. Twenty-one members enjoyed a coöperative dinner. As a part of the city-wide drive starting April 16, the Bronson Hospital film, "Emergency Case," was presented showing how vital is the necessity for more adequate facilities. The pertinent remarks of Mrs. Matthew Peelen further stressed the great service this hospital renders to the city.

The president, Mrs. F. M. Doyle, appointed Mrs. Wm. Scott to represent the Auxiliary on the Child Welfare Board.

The program of the Mental Hygiene Institute held at Walwood Hall, March 22, was announced.

A tea was given April 5 at the Civic Auditorium, for the state nurses during their visit in Kalamazoo. The committee in charge was composed of: Mrs. S. E. Andrews, chairman; Mrs. W. A. Jennings, co-chairman; committee, Mrs. Wm. Shackleton, Mrs. W. B. Crane, Mrs. K. F. Bennet, Mrs. E. G. Upjohn, Mrs. J. R. MacGregor, Mrs. J. C. Volderauer, Mrs. J. Malone, Mrs. R. McNair, and Mrs. P. M. Fuller.

BARBARA K. AACH,
Publicity Chairman.

Lapeer County

On Friday evening, March 10, the Lapeer County Medical Society and Auxiliary were dinner guests of Dr. and Mrs. F. A. Hanna at the Michigan State Home and Training School. After dinner the ladies of the Auxiliary met at Mrs. Hanna's apartment for a short business meeting. One new member joined the group. Two pamphlets describing the aims of the Auxiliary were read and discussed. Games were then played for "white elephant" prizes.

The April meeting was a pot-luck dinner with Mrs. F. A. Tinker of Lapeer.

MRS. D. J. O'BRIEN,
Press Chairman.

Monroe County

The Women's Auxiliary of the Monroe County Medical Society held a bridge supper at the Monroe Country Club for their March meeting.

(MRS. VINCENT) MARTHA BARKER.

Washtenaw County

Prof. John L. Brumm, head of the University School of Journalism, was the guest speaker at the dinner meeting of the Washtenaw County Medical Auxiliary held March 3 at the Michigan Union. Mr. Brumm read a very clever, original, one-act play entitled "Scrambled Ego."

A benefit bridge was given at the Michigan League, April 21, to raise funds for the special projects of the Society.

Mrs. Howard Cummings and Mrs. H. W. Riggs were co-chairmen of the affair.

CECELIA Y. ROSS.

Kent County

Dr. Lemoyne M. Snyder, medicolegal counselor of the ballistics department, Michigan State Police, Lansing, was guest speaker at the March meeting. He regaled the members with several choice bits concerning widely publicized crimes, and also imparted a great deal of worthwhile information which was most timely. Basing his talk on his title, "The Part Medicine Can Play in the Elimination of the Coroner and Detection of Criminals," Dr. Snyder discussed the new bill that has been introduced in the State Legislature, abolishing the present coroner system and setting up a new, more modern and scientific plan. The bill has been carefully drawn and

(Continued on page 442)

BACKGROUND

Three Decades of Clinical Experience

THE use of cow's milk, water and carbohydrate mixtures represents the one system of infant feeding that consistently, for three decades, has received universal pediatric recognition. No carbohydrate employed in this system of infant feeding enjoys so rich and enduring a background of authoritative clinical experience as Dextri-Maltose.

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MICHIGAN'S DEPARTMENT OF HEALTH

DON W. GUDAKUNST, M.D., Commissioner
LANSING, MICHIGAN

SYPHILIS PROGRAM

In connection with the extensive syphilis control program now being sponsored by the Michigan Department of Health, Dr. Don W. Gudakunst, commissioner, has announced that an educational program with the colored physicians and lay groups of the state is now being conducted by Dr. Eugene S. Browning, staff physician.

Dr. Browning is consulting with physicians, enlisting their coöperation in the venereal disease program. He is also speaking before lay groups of colored people. Dr. Browning was formerly dermatologist to the Michigan Reformatory at Ionia, recommended by the Michigan State Medical Society. Requests for Dr. Browning's services may be addressed to the Michigan Department of Health at Lansing.

As an addition to its syphilis education materials, the Michigan Department of Health has published a Michigan edition of the popular folder, "Syphilis —Its Cause, Its Spread, Its Cure," issued by the U. S. Public Health Service. The folder is practicable for use with syphilis patients as well as for general educational purposes. Physicians and local organizations desiring to distribute this publication may obtain copies free upon request to the Michigan Department of Health.

A new social hygiene poster giving a fresh, wholesome approach to the modern social hygiene program is also available free upon request. Carrying the caption "The Youth of the Nation Are the Trustees of Posterity," the poster is suitable for posting in waiting room or health department offices.

TO CHECK HEALTH OF IMPORTED BEET FIELD WORKERS

A coöperative plan for protecting the health of Michigan communities from contagious diseases among imported Mexican beet field workers has been announced by the Michigan Department of Health.

Medical examination of all such workers before they are brought here from Texas each year is proposed in plans approved by the Michigan sugar beet growers' associations and state health officials. Representatives of the four associations with a membership of 20,000 Michigan farmers, have agreed to pay half the expense of the health examinations. Approximately 10,000 Mexican beet field workers are imported into the state during each growing season. Diseases found among many of these laborers in the past have been a danger to the health of several Michigan communities. The outbreak of Shiga dysentery in Shiawassee County last summer was attributed to this source.

The State Health Department will provide the other half of the cost of the necessary examinations with the aid of funds allotted from the U. S. Public Health Service. The sugar beet growers have agreed to employ no worker who has not passed a physical examination showing that he is free from tuberculosis and syphilis in infectious stages. The medical examinations will be made in Texas before the workers are hired by the sugar beet growers association.

PEDIATRICS COURSE FOR UPPER PENINSULA

A series of postgraduate lectures in pediatrics will be sponsored for physicians at four centers in the Upper Peninsula starting the week of May 1. The series will be given at Sault Ste. Marie, Houghton, Marquette, and Escanaba. Physicians may attend meetings at any of the centers. There is no fee.

Dr. M. Cooperstock, assistant professor of pediatrics and infectious diseases, University of Michigan, will open the series the week of May 1 with a lecture on "Rheumatic Infection in Children."

Dr. James L. Wilson, associate professor of pediatrics, Wayne University, will appear on the series the week of May 8 with a discussion of "Diseases of the Newborn."

The following week Dr. John L. Law, assistant professor of pediatrics and infectious diseases, University of Michigan, will lecture on "Communicable Diseases With Special Reference to Prophylactic Measures and Treatment."

Dr. Benjamin W. Carey will appear on the series the week of May 22 on the subject "Respiratory Infections With Particular Reference to Pneumonia. Discussion of Pyridine-Sulfanilamide." Dr. Carey is assistant professor of pediatrics at Wayne University.

The concluding lecture of the series the week of May 29 will be given by Dr. J. A. Johnston, pediatrician-in-chief, Henry Ford Hospital, Detroit, on the topic, "Nutrition in Infancy, in Health and Disease."

This course has been arranged through the coöperation of the Michigan State Medical Society, the University of Michigan, the Michigan Branch of the American Academy of Pediatrics, and the Michigan Department of Health.

COLLOIDAL GOLD TITRATIONS

The Bureau of Laboratories has announced that colloidal gold titrations of spinal fluid are now being run at all four of the Michigan Department of Health Laboratories located at Lansing, Grand Rapids, Houghton, and Powers.

GRAND TRAVERSE HEALTH DIRECTOR

The Board of Supervisors of Grand Traverse County has announced the appointment of Dr. J. K. Altland as director of the recently organized county health department. Dr. Altland was formerly associated with the W. K. Kellogg Foundation at the Allegan County Health Department.

NEW LABORATORIES REGISTERED

The Bureau of Laboratories has announced that the Mercy Hospital Laboratory at Cadillac and the Laboratory of the Michigan State Hospital for Epileptics at Wahjamega have been registered for making examinations in the serodiagnosis of syphilis under the Antenuptial Physical Examination Law, Act No. 207, P. A. 1937.

MARRIAGES IN 1938

A 37 per cent drop in marriages in Michigan in 1938 has been reported by the State Department of Health. There were 30,002 marriage licenses issued in 1938 compared with 47,954 in 1937. Although a good deal of this decrease has been attributed to the operation of the premarital medical examina-

tion law in Michigan, it was pointed out that economic conditions also had a very definite effect upon marriages last year. The marriage and divorce rate closely parallel any changes in economic conditions. Both marriages and divorces increase in good times and decrease in periods of economic stress. As a barometer of economic conditions in 1937 compared with 1938, divorces declined 15 per cent last year, while marriages too were dropping. There were 10,646 divorces granted in Michigan in 1938 compared with 12,472 the previous year.

The monthly distribution of marriage licenses issued in Michigan indicates that June is still the favorite month for altar-bound couples. March appears to be the least favorable. There were 4,079 marriage licenses issued in June last year compared with 1,352 in March.

CORRESPONDENCE

Resolution Adopted by the O.M.C.O.R.O. County Medical Society

WHEREAS, House Bill No. 215, State of Michigan Legislature of 1939-40 regular session, To provide for and to regulate the incorporation of a non-profit medical care corporation; to provide for the supervision and regulation of such corporation by the State Commissioner of Insurance; and to prescribe penalties for the violation of the provision of the act, and

WHEREAS, the enabling act to permit voluntary group medical care drafted by the M.S.M.S. Legislative Committee and approved by the Council, has been checked by the Michigan Insurance Department; and,

WHEREAS, the O.M.C.O.R.O. County Medical Society has made a study of the bill and being a component part of the Michigan State Medical Society favor the passage of the above legislation.

THEREFORE, BE IT RESOLVED that the O.M.C.O.R.O. County Medical Society go on record as favoring and endorsing the above legislation.

O.M.C.O.R.O. County Medical Society,
C. G. CLIPPERT, *Secretary.*

* * *

Trimountain, Michigan
April 13, 1939.

Dear Sirs:

At the April meeting of the Houghton-Baraga-Keweenaw County Medical Society, the assembled members unanimously voted the secretary to forward to the Executive Council of the Michigan State Medical Society, in writing, their wholehearted approval of the manner in which all the present medical problems are being treated.

We are behind The Council every inch of the way. The problems before the medical profession at the present time are not the problems of any one individual member or of The Council alone, but rather of all the ethical practitioners of medicine. You are our spokesmen, so lead on as in the past and we will try to do our individual small share here in our own communities.

Very truly yours,
Houghton-Baraga-Keweenaw County
Medical Society,
(Signed) P. S. SLOAN, M.D., *Secretary-Treasurer.*

April 18, 1939

L. Fernald Foster, M.D., Secretary,
Michigan State Medical Society,
2020 Olds Tower,
Lansing, Michigan.

Dear Doctor Foster:

At the January meeting of the Saginaw County Medical Society a resolution was passed indorsing the action of the House of Delegates of the Michigan State Medical Society in their approval of the principles of Group Hospitalization and Group Medical Service.

It was also understood that The Council was empowered to proceed with the establishment of the plans embodied in the above principles.

Very truly yours,
Saginaw County Medical Society,
(Signed) DALE E. THOMAS, M.D., *Secretary.*

* * *

April 14, 1939.

L. Fernald Foster, M.D., Secretary, M.S.M.S.
2020 Olds Tower,
Lansing, Michigan.

Dear Doctor Foster:

At the monthly meeting of the Lapeer County Medical Society which was held on April 14, the following resolution was introduced:

"RESOLVED, That the Lapeer County Medical Society express its confidence in the ability of the officers, Council, and committees of the Michigan State Medical Society in their action on legislation, and particularly in the Medical Care Plan as adopted by the House of Delegates."

The motion was duly seconded and unanimously passed.

Yours very truly,
Lapeer County Medical Society,
(Signed) CARL C. JACKSON, *Secretary.*

* * *

March 16, 1939.

Mr. Wm. J. Burns, Executive Secretary,
Michigan State Medical Society,
2020 Olds Tower,
Lansing, Michigan.

Dear Mr. Burns:

Although it must be recognized that the services of dentistry ultimately must be included in any scheme aimed at solving the problem of extending health care, the Executive Council of the Michigan State Dental Society has decided that it will make no request to have dentistry specifically included in House Bill 215 at this session of the Legislature.

Very truly yours,
Michigan State Dental Society,
(Signed) J. ORTON GOODSELL, *President.*

KENT COUNTY AUXILIARY

(Continued from page 438)

deserves support. Members were urged to do what they can in favorably publicizing it. Other interesting topics touched upon included the manner of tracing bullets and the scientific determination of the degree of drunkenness.

Presiding at the tea table, which was attractively arranged with St. Patrick's decorations, were Mrs. Carl F. Snapp and Mrs. Joseph B. Whinery. Mrs. Murray M. Dewar and Mrs. M. J. Holdsworth were hostesses.

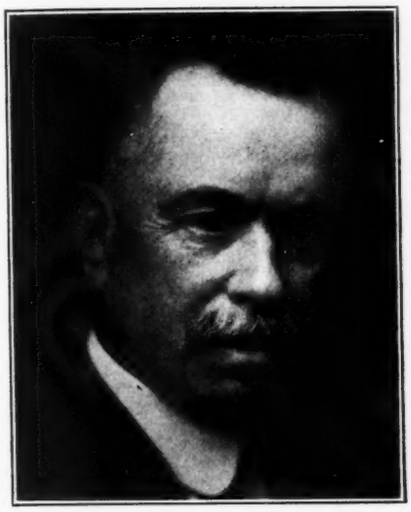
The next meeting, which will be the annual tea, will feature an exhibition of member's hobbies and will take place at the home of the chairman, Mrs. O. H. Gillett.

(MRS. C. H.) JANE R. FRANTZ,
Press Chairman.

IN MEMORIAM

William H. Haughey, M.D.

Dr. William H. Haughey of Battle Creek died at his home on April 14, at the age of eighty-two. He was born in Kalamazoo on July 6, 1856, son of Luke R. and Mary (Talbot) Haughey. His parents came to the United States from Ireland.



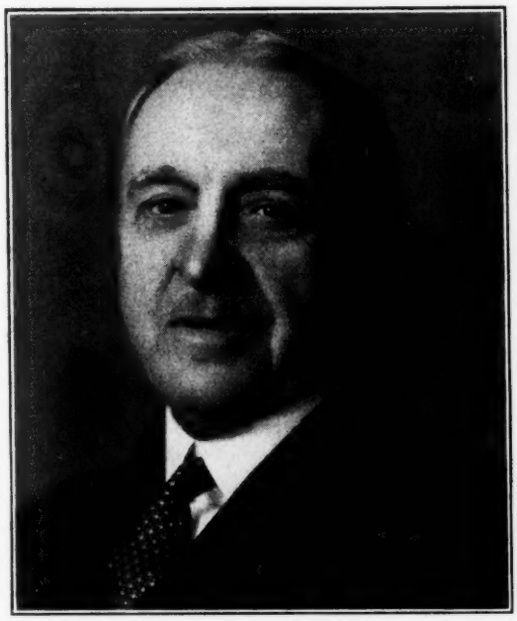
Dr. William H. Haughey

Dr. Haughey attended the public schools of Kalamazoo and from the age of nineteen he taught school for twelve consecutive winters, devoting the summers to farm work. He was married in 1879 to Miss Elizabeth Converse. During his teaching career, he decided to become a physician and read medical works during his spare time. He entered the Detroit College of Medicine in the Junior class and graduated in 1888. Following his graduation, he moved to Battle Creek where he had been in practice up to the time of his death. In 1895, Dr. Haughey performed an appendectomy at Battle Creek, the first to be performed there. He was a pioneer in pelvic and abdominal surgery and in 1896, he developed the so-called buried suture, which became universally used. Following his graduation from medical college, he became a member of the Calhoun County Medical Society, every office in which he held during his fifty years of membership. Dr. Haughey was made an honorary member of the Michigan State Medical Society in 1928. In 1926, the Calhoun County Medical Society was at such a low ebb that the members voted to disband. Owing to Dr. Haughey's efforts, however, interest in the county medical society was revived so that since that time Calhoun County Medical Society has become one of the most active county medical societies in the state. In appreciation of his long medical career as well as service to his society, a testimonial dinner by the county medical society was tendered him in 1938 when more than one hundred members and guests met to do him honor. Dr. Haughey took a keen interest in civic affairs but the only public office he ever held was that of health office in 1903. During the last ten years of his life, he devoted much time to the St. Vincent de Paul Society which is a welfare organization. He assisted in making preliminary surveys which resulted in the organization of the Community Chest. Dr. Haughey was greatly interested in the promotion of postgraduate courses for physicians. Early in his career he was a "horse and buggy" doctor, but with the advent of the automobile, he procured one of the first, and installed one of the first telephones in Battle Creek. To few doctors has it been the good fortune to have a long and useful career without any serious illness. He became ill in December last and made a satisfactory recovery only to be taken down with pneumonia two months ago. He rallied from this illness and continued his practice but suffered a relapse a month ago from which he did not recover. Throughout his long life, his interest in his profession continued unabated.

He is survived by his widow, four sons, Dr. Wilfrid Haughey, at one time secretary of the Michigan State Medical Society and editor of this JOURNAL, and at the present time councillor for the third district; Charles Haughey of Battle Creek, Louis Haughey of Dayton, Ohio, and J. Frank Haughey of Jackson; and a daughter, Mrs. Anna Callahan of Battle Creek. Two sisters also survive, namely Mrs. C. L. Yeo, and Mrs. Minnie Grace of Kalamazoo, and one brother, Charles Haughey of Grand Rapids. Dr. Haughey had fifteen grandchildren.

Angus McLean, M.D.

Dr. Angus McLean of Detroit died on April 11, after an illness of about seven weeks. He had attained his seventy-seventh birthday on the 4th of April. Dr. McLean was born in St. Clair County, Michigan. He afterwards moved to Ontario, where



Dr. Angus McLean

he attended the Strathroy Collegiate Institute in 1880. He returned to Michigan and graduated from the Detroit College of Medicine in 1886. Following his graduation, he spent an interneship of a year at Harper Hospital. In 1888, he entered practice with Dr. H. O. Walker, who was one of the outstanding surgeons of Detroit during this time and many years later. Following his association with Dr. Walker, Dr. McLean practiced with the late Dr. J.

B. Book. He pursued postgraduate work in surgery at the University of Edinburgh, Scotland, before entering practice independently. Dr. McLean was city physician of Detroit from 1888 to 1891. He was police surgeon from 1895 to 1901 and from 1905 to 1913 he was professor of Clinical Surgery at the Detroit College of Medicine. He served as a member of the State Board of Health from 1905 to 1911, when he was appointed to the Detroit Board of Health. He was a member of the Detroit Board of Health until the United States entered the war. Dr. McLean was attending surgeon to Harper, Providence and Children's Hospitals. He was elected member of the Detroit Board of Education in 1923, a position which he held until his death. He was president of the Board in 1935.

Any sketch of Dr. McLean would be incomplete were his notable war record omitted. He organized the Harper Hospital Unit known as Base Hospital Number 17, and was its commanding officer. The honors bestowed upon him for distinguished service were numerous. He was sent by the surgeon general of the U. S. Public Health Service as head of the medical commission to the Italian Armies. He received a citation by the Adjutant General of the U. S. Army in the A.E.F. By appointment, he was special surgeon to the Peace Commission in France, and was detailed by General Pershing to accompany President Wilson home in 1919. The same year he received the Diploma of Honor at Dijon, and was recommended for the Legion of Honor by the French Government. In 1921, he received the Distinguished Service Medal from Congress. In 1929, he was one of four delegates to the Fifth International Congress of Military Medicine at London by appointment of President Hoover. He was elected honorary professor of Military Surgery in the University of Warsaw, whose medal he was awarded. Dr. McLean was a member of the Wayne County, Michigan State, and American Medical Associations, and a Fellow of the American College of Surgeons. He was president of the Wayne County and Michigan State Medical Societies in 1920. In 1921, he organized the Detroit Academy of Surgeons, and was its first president. The older members of the medical profession will remember the office of Dr. McLean which he held pointly with Dr. Don M. Campbell and Dr. Andrew P. Biddle on Fort Street. For the past twenty-five years, he had an office in the David Whitney Building.

He was, as will be seen, an outstanding citizen. A Democrat in politics, the fact that he found himself often in the opposition did not prevent him from rendering valuable services to his city and state. His profession was always nearest to his heart, and in earlier years his practice was very large. He was a keen diagnostician and a deft operator. In April of 1907, Dr. McLean married Rebecca Scotten, who survives him. He is also survived by two daughters, Miss Marion McLean and Mrs. Frank McKenzie, and also three sisters, Mrs. Belle Grindley, Mrs. Florence Reithard, and Mrs. Jessie Fuller. Dr. McLean was a member of the Detroit Athletic Club and the Army and Navy Club at Washington. He was a Mason, and the funeral services, which took place on April 13 from the Fort Street Presbyterian Church, were in charge of Detroit Commandery Number 1, Knights Templar.

Angus McLean: A Personal Tribute

In 1883 there enrolled in what was to become the Detroit College of Medicine (1885), and today is known as the Wayne University College of Medi-

cine, two young men, the one drawn from the waters of the Great Lakes, the other from the United States Naval Academy, Annapolis, Maryland.

Whether or no these youthful sailors of the fresh and salt waters were attracted to each other because of their early seafaring training, I do not recall; nevertheless there was developed throughout their early student years a friendship which endured for more than half a century. Within this circle was later drawn the name of Dr. Don M. Campbell. Through fair and foul weather the flag of that friendship has flown at the masthead, never at half-mast. Though aid and sympathy were gladly extended, the obligations of friendship were never shunned. What the one desired, the other two must see that it was secured.

Dr. McLean served his interneship in Harper Hospital (1886-1887), and within these walls that friendship was strengthened. As Senior Interne—there were only two of us then—I turned over all major surgery to him, for already there was blossoming that surgical genius which in later years was to make him known not only as a skillful operator, but a conservative surgeon. His subsequent association with Dr. H. O. Walker, and his service as City Physician and Police Surgeon, and as Professor of Clinical Surgery at the Detroit College of Medicine, added to these qualities of skill and judgment. The increasing demand for his services lay in the confidence which that judgment inspired.

Then came years of private practice in association with Dr. Campbell and myself, and then the Spanish-American War (1898). I write of this because it was here that his love of family was strongly exhibited. His beloved younger brother, Dr. Allan McLean, was serving as my Hospital Steward in the 31st Michigan Volunteer Infantry. We were under orders to proceed to Cuba, and he had come to Chickamauga Park, Georgia, to bid Allan goodbye. Tears rolled down his cheeks as he felt in the conflict of war Allan might never return. Allan was subsequently commissioned in the Medical Corps, U. S. Navy, and served with distinction, and Angus was to organize Base Hospital No. 17 (Harper Hospital), and to serve as its commander. His work with the A.E.F. in France is history, and will not be reviewed here, except to write that its value was recognized by superior officers and by governments.

The walls of his apartment and of his office give mute testimony to the regard in which Great Britain, France, Italy, Poland held him. His services were recognized by Congress in the bestowal of the Distinguished Service Medal (1921), and by the Government by his appointment by the President as a U. S. delegate to the Fifth International Congress of Military Medicine at London, 1929, and to Poland for the meeting at the University of Warsaw of the Military College of Medicine and Pharmacy.

His own state and city recognized his service in his appointment as a member of the State Board of Health, his election as the first president of the Detroit Academy of Surgery, as president of the Wayne County Medical Society, as president of the Michigan State Medical Society, and his election and reëlections to the Board of Education in the City of Detroit.

He was very fond of all these acknowledgments

and decorations, not because he was proud, but because he dearly loved to be among the active, vibrating, living forces.

But what endeared himself to me was his unfailing kindness. He rejoiced when there was rejoicing; but in time of distress, when loss of all that is dear seemed to spell disaster, he was always there with words of encouragement, offers of help and performance.

Of Scottish ancestry and of Presbyterian faith, he fought hard for what he conceived was right. His strong executive ability was shown in the administration of the problems, which were many, which confronted him as a member of the Board of Education and as ex-officio member of the Detroit Library Commission. His work was marked by courage, faithfulness to his trusts, and good common sense. He was a skillful operator, a conservative surgeon, a priceless friend.

In these few words of reminiscence I wish to add my tribute to one upon whose friendship one could always rely, and to whom I am much indebted. Over fifty-six years of intimate friendship he never failed.

ANDREW P. BIDDLE.

C. D. Hart, M.D.

Dr. Clarence Dunbar Hart of Newberry, Michigan, who was elected last fall as councillor of the 12th district, died very suddenly on April 9, in Savannah, Georgia. Dr. Hart had resigned his position as district health officer at Newberry and had gone to Georgia, where he had accepted a similar position. He was born at Cambridge in 1895, and he was a graduate of Harvard with the degree of B.S., M.D., and C.P.H. At the time of his appointment as councillor of the Michigan State Medical Society, Dr. Hart was secretary of the Luce County

DR. C. D. HART

Medical Society, and a member of the Public Relations Committee and Preventive Medicine Committee of the State Medical Society.

Orin H. Freeland, M.D.

Dr. Orin H. Freeland of Mason, Michigan, died March 25, 1939, at the age of sixty-nine years, after an illness of several weeks from heart disease.

Dr. Freeland was born in Ingham County on August 25, 1869. He graduated from the University of Michigan Medical School in 1897, and then joined the 31st Michigan Volunteer Infantry in the War with Spain. He began practice in Mason in 1899.

Dr. Freeland was a member of the Ingham County Medical Society, the Michigan State Medical Society, and the American Medical Association. He was also a member of the F. & A. M., a life member of the Knights of Pythias, and a member of the Kiwanis Club.

He is survived by the widow, one sister, and several nieces and nephews.

Jacob O. Lunn, M.D.

Dr. Jacob O. Lunn of Harbor Beach was found dead in his home from a self-inflicted shotgun wound, on April 9. Dr. Lunn was born in Beloit, Wisconsin, on September 28, 1885. In 1908 he was graduated from the University of Chicago, and for ten years he was house surgeon in St. Paul's Hospital, Manila, in the Philippine Islands. While in Manila, he married Miss Ethel Williamson of London, England, in 1916. Dr. Lunn was a member of the Harbor Beach Masonic Lodge, the I.O.O.F., and the Rotary Club, and also an elder in the Presbyterian Church and superintendent of the Sunday School. Dr. Lunn is survived by his wife, two daughters, Miss Margaret and Miss Ruth; also three brothers, Dr. Charles, of Malta, Illinois, John of Chicago, and Benjamin of Beloit, Wisconsin, and two sisters, Miss Margaret and Miss Julia of Beloit, Wisconsin.

General News and Announcements

The 100 Per Cent Club of the Michigan State Medical Society

Branch County Medical Society
Clinton
Delta-Schoolcraft
Hillsdale
Huron-Sanilac
Ingham
Lapeer
Livingston
Luce
Manistee
Mecosta-Osceola-Lake
Menominee
Midland
Muskegon
Newaygo
Oceana
Ontonagon
Ottawa
St. Joseph
Shiawassee
Tuscola
Wexford-Kalkaska-Missaukee

Other County Medical Societies are near the 100 per cent mark—being out of the honorary club by just one or two members not having paid 1939 dues. Help your society to be in the 100 Per Cent Club.

R. L. Carefoot, M.D., of Markdale, Ontario, was a visitor in the Executive Office on April 10.

* * *

Annual Fracture Day sponsored by the Flint Regional Fracture Committee and the Genesee County Medical Society was held in Flint on May 10. All types of fracture and bone injuries were discussed.

* * *

The courtesy of Mead Johnson and Company in relinquishing their position on the cover of the May JOURNAL so the special directory cover might be used is gratefully acknowledged.

* * *

W. C. Ellet, M.D., was elected Mayor of Benton Harbor at the April election. Doctor Ellet is the first physician to serve as Mayor of Benton Harbor since C. M. Ryno, M.D., served in the twenties.

* * *

The sympathy of the medical profession is extended to Dr. Walter Ford of Detroit, in the death of his wife last April, also to Dr. John Watts of Detroit whose wife died in April.

* * *

Henry A. Luce, M.D., Detroit, and Ralph H. Pino, M.D., Detroit, led the discussion on the presentation of Hospital and Health Service, at the Symposium held at Henry Ford Hospital, Detroit, on April 15, 1939.

* * *

Motor Boat Owners—Attention—With the opening of the navigation season, do you know the requirements of the Motor Boat Numbering Act of 1918 and the Equipment Act of 1910? Full information will be sent upon request by Martin R. Bradley, Collector of Customs, Detroit, Michigan.

* * *

Donald R. Brasie, M.D., Flint, was elected president of the Northern Tri-State Medical Association at the 66th Annual Meeting held in Chicago, April 11. Douglas Donald, M.D., Detroit, was named one of the five counsellors.

James D. Bruce, M.D., Ann Arbor, was chosen President-Elect of the American College of Physicians at the New Orleans meeting, March 27-31.

Henry R. Carstens, M.D., Detroit, was reëlected as Governor for Michigan by the American College of Physicians. Congratulations!

* * *

John Rockwell Pedden, M.D., of Grand Rapids, was recently awarded the Edward and Susan Lowe Fellowship prize of $500 for the purpose of aiding him in further education. The award is made annually to a member of the Butterworth Hospital staff, selected from nominations made by the Executive Committee of the Staff.

* * *

August 23 and 24 are the dates for the Annual Upper Peninsula Medical Society meeting. This year the meeting will be held in Escanaba. Several outstanding physicians are scheduled on the program. A visit to Escanaba on August 23 and 24 would combine a fine vacation in the North with an opportunity to hear such men as Henry Helmholz, J. Arthur Myers, W. W. Bauer, John T. Murphy, Henry R. Carstens, and L. G. Christian. All members of the Michigan State Medical Society are invited.

* * *

Crippled and Afflicted Child Commitments for March, 1939, were as follows: Crippled Child: Total cases, 674, of which 192 were sent to University Hospital and 482 to miscellaneous hospitals. Of the above, Wayne County sent 6 to University Hospital, and 34 to miscellaneous hospitals, for a total of 40 cases.

Afflicted Child: Total cases, 1,665, of which 254 were sent to University Hospital, and 1,411 to miscellaneous hospitals. Of the above, Wayne County sent 44 to University Hospital and 299 to miscellaneous hospitals, for a total of 343.

* * *

Staff officials have been elected for the Mt. Carmel Mercy Hospital, Detroit, which opened for use last January. They are as follows: Chief of staff, Dr. Louis J. Gariepy, Detroit; vice president, Dr. E. D. Margrave, Royal Oak; corresponding secretary and treasurer, Dr. Carl F. Ratigan, of Dearborn; chief of the medical department, Dr. Stanley W. Insley, Detroit; chief of the obstetrical department, Dr. A. K. Northrop, Detroit; chief surgeon, Dr. C. W. Husband, Detroit; chief in general practice, Dr. Arch Walls of Detroit; and general secretary, Dr. E. F. Ducey.

* * *

The American Association of Industrial Physicians and Surgeons will hold its 24th Annual Meeting with the American Conference on Occupational Diseases and Industrial Hygiene at the Hotel Statler, Cleveland, June 5, 6, 7, and 8, 1939. A program of timely interest and importance will be presented by speakers of outstanding experience in all of the medical and engineering problems involved in industrial health. A cordial invitation is extended to all whose interests bring them in contact with these problems. Write A. G. Park, Convention Manager, 540 N. Michigan Ave., Chicago, for full information, hotel reservations, etc.

* * *

The Wagner "Health" Bill (S. 1620) would eventually, if it becomes law, replace the private practitioner of medicine with physicians appointed on a political basis and placed on a salary. Nothing but

inferior and inadequate service would or could be given the sick. The Wagner Bill does not provide for compulsory health insurance, but it does provide for government subsidies, which means government control. Government control of medicine and all health agencies will expand rapidly until a complete system of state medicine is saddled on the back of the taxpayer and the medical profession.

Dr. E. H. Bewinski-Corwin, a life-long student of public health, writes, "The further apart public health administration is kept from curative medicine the better are their respective jobs done."

Inadequacy of milk, food, fuel, shelter and clothing are often more responsible for illness than a lack of medical care. If federal funds are to be used to eliminate illness, it is just as logical that the government supply free milk, food, fuel, shelter and clothing.

* * *

Upper Peninsula Secretaries turned out for their Conference held at Marquette on March 26, in great numbers, and brought many of their members along. The late Councilor C. D. Hart of Newberry addressed the group on "Organizational Activities Of the M.S.M.S." The main speaker of the Conference was L. Fernald Foster, M.D., of Bay City, M.S.M.S. Secretary, who spoke on "Socio-Economic Responsibility of the Physician." Executive Secretary Wm. J. Burns discussed current legislation before the Michigan Legislature and the United States Congress. Among those present were Drs. R. J. McClure, Calumet; T. W. Benson, Escanaba; W. C. Lambert, Marquette; H. P. Blake, Marquette; Joseph P. Bertucci, Ishpeming; Gail R. Broberg, Newberry; O. J. Niemi, Marquette; M. Cooperstock, Marquette; Arthur K. Bennett, Marquette; W. B. Chesley, Marquette; C. A. Cooper, Houghton; E. J. Brenner, Manistique; A. R. Tucker, Manistique; R. E. Pleune, Houghton; P. S. Sloan, Houghton; A. R. Peterson, Daggett; Wm. Fiedling, Norway; D. R. Smith, Iron Mountain; R. E. Hayes, Sagola; S. C. Mason, Menominee; E. R. Elzinga, Marquette; W. J. Schutz, Munising; C. W. Baum, Marquette; W. L. Casler, Marquette; John T. Kaye, Menominee; T. P. Wickliffe, Houghton; E. J. Evans, Ontonagon; A. L. Swinton, Marquette; Jacob Talso, Ishpeming; F. J. DeWane, Menominee; A. C. Bachus, Escanaba; Jack Defnet, Escanaba; N. J. Frenn, Bark River; C. C. Corkill, Menominee; N. J. McCann, Marquette; W. S. Jones, Menominee; D. P. Hornbogen, Marquette; R. Grant Janes, Marquette; A. H. Miller, Gladstone; V. H. Vandeventer, Ishpeming; Miles J. Gullickson, Negaunee; R. Lanting, Escanaba.

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Physicians who have addressed county medical societies and lay groups during the past month include:

J. Milton Robb, M.D., Detroit, past-president of the M.S.M.S., spoke to the Detroit Economic Club on March 20, on the subject "Shall We Pay to Keep Well?"

George Hammond, M.D., Ann Arbor, addressed the Hillsdale County Medical Society on the subject of "Use of the Smith-Peterson Nail for Fractures of the Hip" at its meeting of March 30.

Harold A. Miller, M.D., Lansing, discussed "Michigan's Group Medical Care Program" before the Optimist Club of Lansing on April 3rd.

Max Peet, M.D., Ann Arbor, addressed the Calhoun County Medical Society on April 4, on the subject of "Surgical Treatment of Hypertension" with lantern slide illustrations.

Plinn F. Morse, M.D., Detroit, spoke to the Oakland County Medical Society on April 5, discussing the subject "Lesions of the Gastro-Intestinal Tract." Formal Discussion was led by C. G. Darling, M.D., of Pontiac.

K. L. Olmsted, M.D., Coldwater, gave an address on Cancer before a local lay group on April 6.

"What is the Value of Roentgen Therapy in the Treatment of Tumors of the Kidney, Bladder, Prostate, and Testicle?" was the subject under discussion by Albert E. Bothe, M.D., of Philadelphia, at the meeting of the Kent County Medical Society on April 12.

Fenimore E. Davis, M.D., Ann Arbor, spoke to the Kalamazoo County Medical Society at its meeting of April 18, on the subject of "New Anesthetic Agents."

Frederic Schreiber, M.D., Detroit, discussed "Brain Injuries as a Result of Asphyxia at Birth" before the Shiawassee County Medical Society on April 20.

Henry A. Luce, M.D., Detroit, addressed a public meeting in Monroe on April 27, on the subject of "Group Medical Care Plan of Michigan."

* * *

American Congress on Obstetrics

The first American Congress on Obstetrics and Gynecology is to be held in Cleveland, Ohio, from September 11 to 15, 1939. This important meeting comes at a crucial time in American Medicine. The problems associated with human reproduction have become of paramount importance, arousing the intense interest of the public and the profession. The meeting will provide the first opportunity for all the interested groups of workers to assemble together. Doctors, nurses, hospital administrators and public health workers will meet and discuss their mutual problems and correlate their many ideas. A large and representative attendance is necessary to assure the success of this meeting. Already more than 1,400 advance registrations have been received.

Michigan Society for Group Hospitalization

At the time of writing, there are fifty-nine hospitals participating in the Group Hospital Insurance Plan. This includes all non-profit hospitals of Detroit, Ann Arbor, Saginaw, Lansing, Flint, Kalamazoo, Bay City and Petoskey. The plan has been presented in Detroit for three weeks preceding April 12. The employes of forty-two organizations, or a total of over 3,500 subscribers, are protected under group hospitalization contract. The first office of the society is located on Washington Boulevard, Detroit. The second office was opened at Flint on the 12th of April. Within the next few months, offices will be opened in sixteen other cities in Michigan. Participating hospitals to date are as follows:

Participating Hospitals

Alma—R. B. Smith Memorial Hospital.
Ann Arbor—St. Joseph's Mercy Hospital, University Hospital.
Battle Creek—Leila Y. Post Montgomery Hospital.
Bay City—Mercy Hospital.
Detroit—Alexander Blain Hospital, Charles Godwin Jennings Hospital, Children's Hospital, Delray General Hospital, East Side General Hospital, Edyth K. Thomas Memorial Hospital, Evangelical Deaconess Hospital, Florence Crittenton Hospital, Grace Hospital, Harper Hospital, Henry Ford Hospital, Mount Carmel Mercy Hospital, Parkside Hospital, Providence Hospital, Receiving Hospital, Receiving Hospital (Redford Branch), St. Mary's Hospital, St. Joseph's Mercy Hospital, Trinity Hospital, Woman's Hospital.
Dowagiac—Lee Memorial Hospital.
Eloise—Eloise Hospital and Infirmary.
Flint—Hurley Hospital, St. Joseph's Hospital, Women's Hospital.
Goodrich—Goodrich General Hospital.
Grayling—Grayling Mercy Hospital.
Hamtramck—St. Francis Hospital.
Hancock—St. Joseph's Hospital.
Hart—Oceana Hospital.
Highland Park—Highland Park General Hospital.
Howell—McPherson Memorial Hospital.
Ironwood—Grand View Hospital.
Jackson—Mercy Hospital.

Kalamazoo—Borgess Hospital, Bronson Methodist Hospital.
Lansing—Edward W. Sparrow Hospital, St. Lawrence Hospital.
Ludington—Pauline Stearns Hospital.
Manistee—Mercy Hospital and Sanitarium.
Marquette—St. Luke's Hospital.
Monroe—Monroe Hospital.
Petoskey—Lockwood General Hospital, Little Traverse Hospital, Petoskey Hospital.
Pontiac—Pontiac General Hospital, St. Joseph's Mercy Hospital.
Saginaw—Saginaw General Hospital, St. Luke's Hospital, St. Mary's Hospital.
St. Joseph—St. Joseph Sanitarium.
Sault Ste. Marie—Chippewa County War Memorial Hospital.
Wyandotte—Wyandotte General Hospital.
Ypsilanti—Beyer Memorial Hospital.

Registration at MSMS Convention Tuesday, Sept. 20, 1938

Drs. A. T. Laberge, Detroit; J. M. LaBerge, Wyandotte; A. D. LaFerte, Detroit; Norman O. LaMarche, Detroit; E. T. Lamb, Alma; W. D. Lane, Romeo; L. W. Lang, Detroit; Anthony Lange, Detroit; Bror Hjalmar Larsson, Detroit; C. P. Lathrop, Hastings; E. H. Lass, Oxford; Edward H. Lauppe, Detroit; V. S. Laurin, Muskegon; John W. Lawson, Detroit; E. O. Leahy, Jackson; F. W. Lee, Fairview; H. E. Lee, Detroit; F. S. Leeder, Coldwater; Louis S. Leipsitz, Detroit; D. J. Leithauser, Detroit; W. R. Lenz, Detroit; Louis S. Leo, Houghton; Sydney S. Levine, Detroit; Marvin B. Levy, Detroit; J. Hugh Lewis, Wyandotte; M. L. Lichter, Detroit; Harry Lieffers, Grand Rapids; R. W. Lignell, Detroit; Stewart Lofdahl, Nashville; G. W. Logan, Flushing; Oliver W. Lohr, Saginaw; Maurice C. Loree, Lansing; Edgar C. Long, Monroe; Clifford Loranger, Detroit; Earl F. Lutz, Detroit.

Drs. Gordon S. McAlpine, Detroit; Stewart C. McArthur, Mt. Pleasant; Fred W. McAfee, Detroit; Lyman M. McBryde, Sault Ste. Marie; John J. McCann, Ionia; Roy D. McClure, Detroit; Clarke M. McColl, Detroit; J. P. McGonkie, Birmingham; Colin C. McCormick, Dearborn; Lester E. McCullough, Detroit; Thos. H. McEachern, Ann Arbor; N. K. McElmurry, Perry; J. A. McGarvah, Detroit; E. G. McGavran, Hillsdale; R. W. McGeoch, Monroe; D. H. McGinnis, Detroit; J. A. McLandress, Saginaw; Rush McNair, Kalamazoo; Howard H. McNeill, Pontiac; P. F. McQuiggan, Detroit; M. R. McQuiggan, Detroit; Donald H. McRae, Detroit.

Drs. Frances L. MacCraken, Detroit; R. Bruce Macduff, Flint; L. D. MacRae, Gagetown; Clarence E. Maguire, Detroit; Harold U. Mair, Detroit; Edward D. Maire, Grosse Pointe; Vincent S. Mancuso, Detroit; Carleton J. Marinus, Detroit; Morris H. Marks, Detroit; R. M. Martin, Detroit; W. H. Martin, Detroit; Pedro O. Martinez, Detroit; Edgar Martmer, Detroit; Thos. B. Marwil, Detroit; Robt. J. Mason, Detroit; Don R. Mathieson, Detroit; Earl W. May, Detroit; Frederick J. May, Jr., Detroit; Willard D. Mayer, Detroit; J. B. Meads, Jackson; Stuart F. Meek, Detroit; Marvin B. Meengs, Muskegon Hts.; Hyman S. Mellen, Detroit; Frank R. Menagh, Detroit; R. J. Mendelssohn, Detroit; Lionel N. Merrill, Detroit; Harry C. Metzger, Detroit; Maurice Meyers, Detroit; Ernest B. Miller, Manistee; Hazen L. Miller, Detroit; Phillip L. Miller, Muskegon; Clinton C. Mills, Detroit; Frederick B. Miner, Flint; Carl A. Mitchell, Benton Harbor; Gertrude F. Mitchell, Detroit; Robert C. Moehlig, Detroit; Clarence D. Moll, Detroit; Edward Mond, Detroit; C. A. Mooney, Ferndale; G. F. Moore, Mt. Clemens; Gregory Moore, Cadillac; Fred N. Morford, Muskegon; Donald M. Morrill, Detroit; K. M. Morris, Saginaw; R. S. Morrish, Flint; D. B. Morrison, Tekonsha; John B. Morton, Detroit; Max M. Mosen, Detroit; Hugh Mullenmeister, Battle Creek; Frederick Wm. Munro, Grosse Pointe; C. D. Munro, Jackson; John Murphy, Detroit; Scipio G. Murphy, Detroit; Gordon B. Myers, Detroit.

Drs. Harry M. Nelson, Detroit; A. W. Nelson, Battle Creek; J. H. Nicholson, Hart; Victor E. Nelson, Detroit; Wilfred S. Nolting, Detroit; A. Noordewier, Grand Rapids; P. B. Northouse, Grandville.

Drs. Constantine Oden, Muskegon; Ira D. Odle, Flint; Dayton H. O'Donnell, Detroit; W. S. O'Donnell, Detroit; A. B. Olsen, Battle Creek; Milton Oppenheim, Detroit; Leo Orecklin, Detroit; J. Walter Orr, Flint; F. W. Ostrander, Freeland; John P. Ottaway, Detroit; Clarence I. Owen, Detroit.

Drs. L. E. Pangburn, Detroit; Edward J. Panzner, Detroit; H. G. Palmer, St. Petersburg, Fla.; Bernard Patmos, Adrian; P. W. Patterson, Grand Rapids; Matthew Peelen, Kalamazoo; H. E. Perry, Newberry; W. L. Peters, Morenci; Fred W. Phillips, Detroit; Harrison M. Pierce, Colon; Merle Pierson, Detroit; Lyman J. Pinney, Detroit; R. C. Pochert, Owosso; J. J. Pollack, Detroit; H. M. Pollard, Ann Arbor; Frank A. Poole, Saginaw; Edgar E. Poos, Detroit; F. S. Porreta, Detroit; Ross J. Porritt, Pontiac; Horace Wray Porter, Jackson; Enos A. Potts, Detroit; Lunette I. Powers, Muskegon; Harry J. Prall, Lan-

sing; Lawrence A. Pratt, Detroit; A. H. Price, Detroit; Stuart Pritchard, Battle Creek.

Drs. Phil H. Quick, Olivet; William Quigley, Detroit.

Drs. Ivor E. Reed, Detroit; J. J. Reichman, Mt. Clemens; Albert H. Reisig, Monroe; E. J. Rennell, Traverse City; Leo P. Rennell, Detroit; Harold B. Rice, Detroit; John Wesley Rice, Sturgis; M. Rice, Detroit; Allan L. Richardson, Detroit; Robt. P. Richardson, Eloise; J. R. Ridlon, Detroit; J. W. Rigterink, Grand Rapids; A. J. Roberts, Jackson; Floyd A. Roberts, Flint; Hugh B. Robins, Marshall; James R. Rogin, Detroit; Robert Rosenberg, Saginaw; Herman G. Rosenblum, Flint; M. V. Rosenthal, Detroit; C. Howard Ross, Ann Arbor; Paul Roth, Battle Creek; Theodore I. Roth, Detroit; Harold B. Rothbart, Detroit; Emil D. Rothman, Detroit; Michael S. Rowda, Detroit; Walter Z. Rundles, Flint; V. P. Russell, Royal Oak; Richard S. Ryan, Saginaw; Frank L. Ryerson, Detroit.

Drs. Edward L. Sager, Detroit; John T. Sample, Saginaw; Alexander W. Sanders, Detroit; Susanne M. Sanderson, Detroit; Nathaniel Sandler, Detroit; Philip P. Sayre, South Haven; Waldo A. Schaefer, Port Huron; I. S. Schembeck, Detroit; C. W. Schepeler, Brooklyn; Arthur E. Schiller, Detroit; G. Schinagel, Detroit; N. H. Schlafer, Detroit; Harry E. Schmidt, Detroit; T. E. Schmidt, Jackson; E. W. Schnoor, Grand Rapids; C. H. Schulte, Detroit; Ernest Schultz, Detroit; Sam Schultz, Coldwater; C. F. Schweigert, Detroit; J. W. Scott, Detroit; Foster D. Scruton, Detroit; Ward F. Seeley, Detroit; C. D. Selby, Detroit; Lowell S. Selling, Detroit; L. G. Sevener, Charlotte; George Sewell, Detroit; W. E. Shackleton, Kalamazoo; G. O. Shantz, Flint; Ara D. Sharp, Albion; Chas. H. Sharrer, Detroit; Milton Shaw, Lansing; H. Shilkovsky, Detroit; Burt R. Shurley, Detroit; I. Sicotte, Michigamme; Roger S. Siddall, Detroit; H. Lee Simpson, Detroit; Robert Simpson, Battle Creek; Geo. W. Sippola, Detroit; Edward J. Skully, Detroit; Walter K. Slack, Saginaw; Frank J. Sladen, Detroit; P. Earle Smith, Grand Rapids; Lillian R. Smith, Lansing; Richard R. Smith, Grand Rapids; E. M. Smith, Grand Rapids; Ferris Smith, Grand Rapids; Charles J. Socall, Detroit; E. M. Sorock, Detroit; Loren C. Spademan, Detroit; R. W. Spalding, Gobles; Frederick L. Sperry, Detroit; U. G. Spohn, Fairgrove; Benj. R. Springborn, Detroit; H. J. St. Amour, Detroit; John C. Stageman, Detroit; Ernest L. Stefani, Detroit; W. H. Steffensen, Grand Rapids; James R. Stein, Detroit; Eugene J. Steinberger, Detroit; Milton J. Steinhardt, Detroit; Max Steiner, Detroit; Chester E. Stellhorn, Detroit; Duncan C. Stephens, Howell; Robt. A. Stephenson, Flint; Wm. W. Stevenson, Flint; Chas. E. Stewart, Battle Creek; Benj. W. Stockwell, Detroit; Lindley H. Stout, Detroit; P. C. Strauss, Lansing; Henry D. Stricker, Detroit; Fred L. Strickroot, Detroit; A. W. Strom, Hillsdale; C. K. Stroup, Flint; Howard T. Stuch, Allegan; O. H. Stuck, Otsego; George C. Stucky, Charlotte; Fred A. Sturm, St. Clair Shores; John Sundwall, Ann Arbor; John P. Surbis, Detroit; H. C. Swenson, Grand Rapids; E. R. Swift, Lakeview.

Drs. C. S. Tarter, Bay City; Fred R. Thacker, Frankfort; Earl A. Thayer, Jackson; J. T. Thomas, Jr., Detroit; Geo. C. Thosteson, Detroit; Joseph C. Tiffany, Grand Rapids; Ledyard Tomlinson, Newport; Fred W. Thomas, Detroit; James A. Thomas, Coldwater; Sue Thompson, West Branch; Arthur C. Tompsett, Hesperia; James W. Townsend, Jackson; Frederick D. Trautman, Frankfort; G. E. Tweedie, Sandusky; S. Martin Tweedie, Sandusky; Wm. E. E. Tyson, Detroit.

Drs. Henry L. Ulbrich, Detroit; E. Gifford Upjohn, Kalamazoo; William K. Usher, Detroit.

Drs. T. P. Vander Zalm, Lansing; J. Van Loo, Belding; Alfred E. Vannest, Detroit; V. O. Vasu, Detroit; A. E. Voegelin, Detroit; Otto Von Renner, Vassar; Frank A. Votey, Grand Rapids.

Drs. Joseph E. G. Waddington, Detroit; Joseph A. Wall, Detroit; Arch Walls, Detroit; F. R. Walters, Battle Creek; J. F. Waltz, Capac; Wm. G. Wander, Detroit; Henry C. Wass, Port Huron; Ernest H. Watson, Detroit; Frederick B. Watts, Detroit; John H. Wax, Detroit; Leonard L. Weil, Benton Harbor; Jacob Weinstein, Detroit; Carl S. Wencke, Battle Creek; Jacob S. Wendel, Detroit; John N. Wenger, Cooperville; Jacob F. Wenzel, Detroit; Morris D. Wertenberger, Jackson; H. O. Westervelt, Benton Harbor; Russell F. Weyher, Detroit; Neil J. Whalen, Detroit; Robert K. Whiteley, Detroit; Elmer L. Whitney, Detroit; Alfred H. Whittaker, Detroit; John W. Wholihan, Michigan Centre; A. B. Wickham, Detroit; Israel Wiener, Detroit; M. M. Wilde, Warren; Thomas Wilensky, Eaton Rapids; Arthur P. Wilkinson, Detroit; Mildred C. Williams, Detroit; R. J. Williams, Monroe; J. D. Wilson, Detroit; Norman D. Wilson, Jackson; Stuart Wilson, Detroit; Walter J. Wilson, Jr., Detroit; James M. Winfield, Detroit; Carlton W. Winsor, Detroit; Frank C. Witter, Detroit; Kenneth P. Wolfe, Alma; Victor Hugo Wolfson, Mt. Clemens; Robert A. C. Wollenberg, Detroit; A. R. Woodburne, Grand Rapids; W. B. Woods, Detroit; W. E. Woods, Detroit; Walter J. Wright, Ypsilanti; Thelma M. Wygant, Detroit.

Drs. I. V. Yale, Sault Ste. Marie; Stuart Yntema, Saginaw; William J. Yott, Detroit; Wm. Rae Young, Lawton;

Don A. Young, Detroit; Lloyd B. Young, Detroit; Viola M. Young, Detroit.
Drs. A. L. Ziliak, Bay City; Geo. H. Zinn, Detroit; Carl R. Zolliker, Detroit.
Dr. Arthur A. Wittenberg, Detroit.

The above list represents the balance of the registration of Tuesday, September 20, 1938. The registration of Wednesday and Thursday will be published in succeeding issues of THE JOURNAL.

THE 70TH ANNIVERSARY OF THE MEDICAL DEPARTMENT OF WAYNE UNIVERSITY

(The Detroit College of Medicine)

The year 1939 marks the 70th Anniversary of the Detroit College of Medicine, now the Medical Department of Wayne University. It also marks the Golden Jubilee of the Alumni Association and the fortieth year of the Alumni Clinic week.

The Detroit College of Medicine was the outgrowth of the Detroit Preparatory School of Medicine which was started in 1868 in the Army Hospital located near the present site of Harper Hospital. The regular term was eighteen weeks. Clinical instruction was given at St. Mary's Hospital, Harper Hospital, and the College Dispensary. In June, 1879, the Michigan College of Medicine was organized and in 1885 it was amalgamated with the Detroit College of Medicine. In 1889 a new college building was erected on the northeast corner of St. Antoine and Mullett Streets. The Building was destroyed by fire in 1896 but the building was at once rebuilt and was soon ready for use. This in short is the early history of the college. Nothing is said here of the work and devotion of the men who made the success of the school possible. It had like all the proprietary schools many vicissitudes which we will not take the time to recount.

Suffice to say that the loyal supporters of the school were on the job. However, the college became more and more costly to operate. In 1910 a new corporation took over and carried on until 1917 when the college was taken over by the Board of Education thus becoming the oldest division of Wayne University.

New and modern laboratories were constructed and full-time men were engaged and paid to teach the basic sciences—anatomy, physiology, chemistry, histology, pathology and pharmacology. Since that time the course of the College has been onward and upward.

This year the status of the College as a Class A institution was continued by the Council on Medical Education of the American Medical Association. Dean Allen reported that Dr. William D. Cutter, Secretary of the Council, said, "Wayne University has made more progress in recent years than any other medical college in the country." Doctor Cutter also spoke of the excellent clinical facilities which Detroit hospitals offer medical students, and of the use made of their facilities.

Visitors to the Alumni Clinic week will have an opportunity to view the work of the College. The program is being sent to all the Alumni and plans are being made for an excellent review of the new in medicine. All medical men are cordially invited to attend the Clinics on June 13, 14 and 15.

PROGRAM FOR WAYNE UNIVERSITY ALUMNI CLINICS

WEDNESDAY, JUNE 14

Morning (Receiving Hospital)

9:00- 9:15—Registration and assignment to first section of ward rounds.
9:15-10:30—First section of ward rounds.
10:30-10:45—Intermission with assignment to second section of ward rounds.

10:45-12:00—Second section of ward rounds. The ward rounds will be conducted in groups of four or eight. Bedside diagnosis and treatment will be emphasized. Each physician will have the opportunity to examine every patient presented. The following subjects will be taken up:

Cardiology—Drs. Donald and Novy
Nephritis and Hypertension—Drs. Spalding and Schneck
Diabetes—Drs. R. M. McKean and Perkin
Respiratory Diseases—Drs. Lemmon and A. E. Price
Gastro-intestinal Diseases—Drs. Mayer and S. G. Meyers
Blood Diseases—Drs. A. H. Price and VonderHeide
General Surgery—Drs. Johnston and Hartzell
General Surgery—Drs. Vale and Bovill
Fractures—Drs. Laferte and Winfield
Gynecology—Drs. Seeley and Cushman
Urology—Drs. Keane and Plaggemeyer
Eye, Ear, Nose and Throat—Drs. Robb and Heath

Each alumnus will be able to participate in two out of the twelve ward rounds. All those who are planning to attend are requested to send in their preferences by June 1.

12:00 noon—Luncheon at Receiving Hospital

Afternoon (College of Medicine)

2:00 p. m.—Department of Pathology
Demonstration of gross pathological material

Department of Pharmacology and Medicine
Exhibits illustrating therapeutic uses of sulfanilamide, sulfapyridine, and certain of the recent cinchona derivatives

Department of Bacteriology
Demonstration of technic of:
Urinalysis
Blood count with smears illustrating various blood diseases
Sputum examinations, et cetera
Basal metabolism rate

Department of Anatomy
Exhibits illustrating mode of action and clinical application of the sex hormones.

Department of Chemistry
Exhibits and animal experiments illustrating clinical applications of Vitamins B_1, C, D, and nicotinic acid.

Department of Surgery
Film on "Treatment of Intestinal Obstruction"

Department of Physiology
Demonstration of the following subjects:
1. Hormonal Control of Water Diuresis—Dr. Haterius
2. The Nervous and Humoral Control of Gastric Secretion—Dr. Friedman
3. The Control of Gastric Motility—Dr. Patterson
4. Comparative Studies and Psychophysiology—Dr. Scantlebury

Department of Roentgenology
Exhibits of interesting films.

Evening (Class Reunion Dinners)
THURSDAY, JUNE 15

9:00-12:00—College Auditorium

SYMPOSIUM ON OBSTRUCTIVE JAUNDICE

1. Anatomy and Physiology—Dr. Johnston
2. Diagnosis—Dr. Weiser
3. Rôle of Vitamin K.—Dr. Smith
4. Pre- and Postoperative treatment—Dr. Winfield

SYMPOSIUM ON PNEUMONIA

Bacteriology

1. Laboratory Aids in Diagnosis and Prognosis—Dr. Hasley
2. Significance of Sputum Studies in the Prognosis of Pneumonia—Dr. Frisch

Treatment

3. General Measures and Serum—Dr. A. E. Price
4. Chemotherapy—Dr. Myers

SYMPOSIUM ON GENERAL ANOXIA

1. Etiology and Clinical Manifestations—Dr. Schrieber
2. Pathology—Dr. Hartman
3. Rôle of Sedatives, Narcotics and Anesthetics in Cerebral Anoxia—Dr. Murphy
4. Clinical Applications—Dr. Ledwidge

12:00 noon—Annual Meeting
1:00 p. m.—Complimentary Luncheon (College of Medicine)
2:00 p. m.—Boat Ride
7:00 p. m.—Student, Faculty, Alumni Dinner

FRIDAY, JUNE 16

10:00 a. m.—Commencement Exercises.

Michigan Pathological Society

The regular meeting of the Michigan Pathological Society was held at the William Seymour Hospital, Eloise, Michigan, April 15, 1939. It was a joint meeting with the Detroit branch of the American Urological Association, and was well attended by both urologists and pathologists, a total of about seventy being present. The afternoon was spent in exhibits and study of displayed material in the laboratory of the hospital. Dinner was served at six o'clock, following which an excellent scientific program consisting of twenty-four papers was presented in the staff conference room of the hospital. Dr. O. W. Lohr, president, presided.

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Correction

Dr. R. H. Freyberg, Assistant Professor of Medicine at the University of Michigan, in charge of the Rackham Arthritis Research Unit, sends the following note. We regret the error and are pleased to publish the correction. "I would request that you publish a note in the coming issue of the Michigan State Medical JOURNAL to correct an error in the discussion by me in the staff conference of the Department of Internal Medicine, University Hospital, Ann Arbor, which was published in the April 1939 issue of the Michigan State Medical JOURNAL. In the last paragraph, on page 330, there is a statement which reads: 'He recommended doses up to 0.15 grams per pound of body weight every twenty-four hours.' This should read: 'He recommended doses up to 0.045 grams per pound of body weight every twenty-four hours.'"

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.

SURGICAL PATHOLOGY OF THE DISEASES OF THE MOUTH AND JAWS. By Arthur E. Hertzler, M.D., Surgeon to the Agnes Hertzler Memorial Hospital, Halstead, Kansas, Professor of Surgery, University of Kansas. 206 illustrations. Philadelphia, Montreal and London: J. B. Lippincott Company, 1938.

The author will be recognized at once as the author of "The Horse and Buggy Doctor," a book that has been one of the best sellers during the past year. This is the last of Dr. Hertzler's monographs on surgical pathology. The doctor has so declared it, for he says that after thirty-five years of writing, he is going to trade his pen for a lollipop. He takes occasion to pay tribute to his secretary, who has the uncanny faculty of reading his wiggly notes and keeping things together. He believes that if she saw a spirochæte under the microscope, she could type off a rounded sentence, without a moment's hesitation. And Jim, the incomparable Jim Barlow. Jim makes the photographs which go to illustrate the doctor's books. Without him, there could not have been any books. So much for the preface.

Dr. Hertzler feels that since the rise of specialism, dentistry and otolaryngology, much of the work comprising the subject of his book has gotten away from him. Judging, however, from the gross specimens and the descriptions in his monograph, the specialist has not corralled everything. Hertzler's book has the merits of a monograph. It is personal, it is based upon the experience of a single author who confesses that he has not even read the literature cited at the end of his chapters. However, we are going to discount this last statement. The book is written in a simple direct style which should have a wide appeal.

POPULATION, RACE AND EUGENICS. By Morris Siegel, M.D. Published by the Author, 546 Barton St. East, Hamilton, Ontario, 1939.

The work as implied in the title treats of population and eugenics. There is a chapter on etiology, in which the author discusses the causes of large families and small families. These causes are chiefly economic and social. The large family, he says, is apt to be found in rural districts and small families in the cities. The cultured have a disposition to limit the size rather than bring up a family under adverse conditions. Then again, birth control knowledge is more easily obtainable in cities than in the country. The late marriage is another cause for small families. People who prepare for professions or endeavor to get in an established position, usually marry late in life. Other chapters are on Constructive Recommendations, Racial Theories in Relation to Eugenics and Rational Marriage. This comprises the first book. The author also takes up the pathologic phase of population and writes on feeble-minded, mental disorders, epilepsy, restrictive measures, and then ends with general conclusions. The work is easily understood by non-medical readers.

THE PRINCIPLES AND PRACTICE OF OPHTHALMIC SURGERY. By Edmund B. Spaeth, M.D., Associate Professor of Ophthalmology in the Graduate School of Medicine of the University of Pennsylvania. Illustrated with 413 engravings, containing 1031 figures and 4 colored plates. Philadelphia: Lea & Febiger, 1939.

As implied in the title, this work deals with surgical treatment of ocular diseases. The vast field of medical treatment is not included. The author makes himself clear in his assertion that the surgeon cannot be trained from textbooks. The surgical school is the operating room and dissecting room. However, the dissecting room and the operating room would be very inefficient were it not for the accumulated experiences as found in books. As a means of presentation of accumulated experiences in the matter of ophthalmic surgery, Dr. Spaeth's book is a success and the reviewer bespeaks for it a hearty welcome among ophthalmologists.

Among Our Contributors

Dr. Henry A. Christian, A.B., A.M., M.D., LL.D., Sc.D., Hon. F.R.C.P.(Cam.), is Hersey Professor of the Theory and Practice of Physic, Harvard Medical School since 1908, and is Physician-in-Chief of the Peter Bent Brigham Hospital, Boston, since 1910.

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Dr. Warren B. Cooksey was graduated A.B. from Kansas University in 1922, and M.D. from Harvard University in 1926. He is the Medical Department Representative of Shock and Transfusion Committee, and Assistant Physician in the Department of Medicine, Harper Hospital, also medical consultant at the Florence Crittenton Hospital, Detroit. Dr. Cooksey is a Fellow of the American College of Physicians and Councilor of the Central Society for Clinical Research.

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Dr. William Henry Gordon is a graduate of the University of Michigan Medical School, class of 1916. He is attending physician at the Herman Kiefer Hospital, Detroit, assistant physician of Harper Hospital, Detroit, and chief of medicine and chief of staff of the North End Clinic, Detroit. He is also an instructor in the Medical Reserve Corps, State of Michigan. Dr. Gordon is a member of the Wayne County, Michigan State and American Medical Associations, also a Fellow of the American College of Physicians, and holds a certificate from the American Board of Internal Medicine. He has been practicing Internal Medicine in Detroit since 1920.

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Dr. Henry A. Hanelin is a graduate of the University of Illinois College of Medicine, class of 1934. His practice is limited to general surgery and gynecology. Dr. Hanelin is attending surgeon at St. Mary's Hospital, Marquette, Michigan, and associate attending surgeon at St. Luke's Hospital.

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Dr. W. E. Jahsman was graduated from Rush Medical College, Chicago, in 1923, following which he spent his internship at Henry Ford Hospital and later served as medical resident. At the present time, he is associate in the Division of General Medicine at the same hospital.

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Dr. R. G. Leland is Director of the Bureau of Medical Economics of the American Medical Association. He graduated from the University of Michigan in 1907 with the degree of Bachelor of Arts, and in 1909 with the degree of Doctor of Medicine. Following graduation, he practiced in southwestern Michigan for eight years, devoting a considerable part of his time to public health administration. He served for twenty-six months in the Medical Corps of the Army of the United States during the World War. Soon after his discharge from the military service, Dr. Leland served as a member of the staff of the Ohio Department of Health, during most of which time he was Chief of the Division of Hygiene. On leaving the Ohio Department of Health, he became Executive Secretary of the Toledo Public Health Association. It was while serving as Director of the Toledo Public Health Association that Dr. Leland was invited to join the staff of the American Medical Association. He was Assistant Director, Bureau of Health and Public Instruction of the American Medical Association, from 1927 to 1930, and when the Bureau of Medical Economics was organized in 1931, he became its Director. He is the author of "The Costs of Medical Education, Student's Expenditures," "Income From Medical Practice," "Contract Practice," "The Distribution of Physicians in the United States," and co-author with A. M. Simons of "Medical Relations Under Workmen's Compensation," "The Care of the Indigent Sick," "Group Practice," "Rural Medical Services," and many other publications pertaining to medical economics.

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Dr. Walter G. Maddock of Ann Arbor is a graduate of the University of Michigan Medical School, 1927. He is now Associate Professor of Surgery at the University of Michigan.